



LRF/BREEDPLAN eNEWS - LRF/BREEDPLAN eNUUS

Vol 2/No1 – July 2012

Unless noted otherwise all contributions by Peter Massmann. Editor: Dr. Michael Bradfield.

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eNUUS INHOUD / eNEWS CONTENT

1. Message from the LRF President Mr. Wessel Hattingh

During the past year the South African Stud Industry experienced challenging developments and opportunities. The LRF and its members had discussions with the Agricultural Research Council on various projects to the mutual benefit of both parties. In an attempt to discuss the road forward and to coordinate various projects a one day workshop, attended by LRF Societies and management of the ARC, was hosted by the LRF in Bloemfontein on 20 June. We are pleased to confirm that the workshop facilitated by Mr. Peter Massmann was highly successful with the first joint project to be introduced shortly.

The need to be proactive and to assist producers entering the market to run a successful enterprise prompted us to start a Stockman School for beginner farmers. The school is already fully booked will take place at Aldam from 30 July to 3 August. Our special thanks is extended to convener Dr. Michael Bradfield, Landbouweekblad and our other loyal Sponsors

On top of the calendar is certainly Stockman School 2012 featuring three International and eighteen local speakers. We look forward to seeing you at Aldam from 17-19 October.

Regards Wessel

wwh@francolin creek.co.za



2. News from the editor

Dr Michael Bradfield reports:

In the last eNEWS we reported that all Societies in Southern Africa whose agreements had come up for renewal had renewed their ABRI/BREEDPLAN agreements for another five years. We also reported that the Zimbabwean herd book had joined ABRI/BREEDPLAN and that the Namibian herd book has grown from twenty three to thirty Societies. This year the South African Santa Gertrudis Society also made the decision to join BREEDPLAN. We are currently setting up their system and installation will happen at the end of the third quarter of this year. We look forward to having the Santa Gertrudis South Africa producers on board who will join their counterparts in the USA, Namibia and Australia whom will all use the same system.

The visit of ABRI/BREEDPLAN's new managing director, Mr Murray Scholz in January paved the way for the South African beef breed Societies to move to the new International Livestock Registry 2 system (ILR2). Namibia will probably upgrade their system in 2013. The new ILR2 has taken ABRI/BREEDPLAN five years to develop using a large team of programmer's. This effort cannot easily be duplicated. ILR2 is a multi-user, multi-species system, is open source (i.e. uses free software) and is highly configurable to meet the specific needs of clients worldwide. The SA Holstein was the first society to successfully implement the system in 2010.

Beef producers will either receive monthly or quarterly BLUP EBV's and if subscribed, have access to ILR Online. This system allows users to administer most of the transactions directly on the system if the Internet speed is adequate.

Another recent development is the introduction of "the completeness of recording" report for beef producers that basically gives producers a 0-5 star rating. The system will access the level of recording on a range of weights/traits of economic importance. The reports will be part of the normal EBV run. Read "Another new product released by BREEDPLAN" in this eNEWS for more information.

We have also worked with the breed improvement committees of numerous breeds on the Rand Index economic implementation and these will now be discussed at club level for most breeds. The SA Holstein Society is also doing the required research for a new performance Index.

We also look forward to a large turnout of producers at the Stockmans School in October. Our bookings are going well and we should be fully booked within the next month or two. In a first for South Africa, the local livestock industry has also come together in a concerted effort to make a significant and real contribution to the fortunes of new stock farmers. Landbouweekblad, South Africa's biggest farming magazine; Landbank, South Africa's preeminent Agricultural bank; The LRF, a body representing many cattle breed societies; Pick n Pay; Pfizer Animal Health; Molatek Animal Feeds; Taltec Equipment; Unistel; Rudd Scales and Sparta Beef have all thrown their weight behind the Landbouweekblad Stockman's School for Beginner Farmers. The National Department of Agriculture and NERPO have also endorsed the programme.

Earlier this year Mr. Peter Massmann 's sent a questionnaire to numerous producers to ascertain if the articles contained in eNEWS are relevant and where we should be putting our focus. From the questionnaire it is clear that understanding the science of animal breeding (for example, clear guidelines regarding genetic improvement, the understanding EBV's, new developments in genomics) is considered to be very important to producers. It is thus our intention to continue to provide a Newsletter that is widely distributed and address these topics to ensure that Southern African producers remain on the cutting edge of Science Internationally.

Thanks

Contact at info@agribusa.co.za

3. Wat sê die bedryf eNUUS

In die LRF eNUUS poog ons om diversiteit te handhaaf aangesien ons 'n diverse teikenmark het. Watter beriggewing is meer gesog? Moet ons voortgaan met publiserings?

Toonaangewende telers van alle LRF rasse is versoek om verskeie vrae op 'n skaal van 1 (geen belangstelling – los uit) tot 9 (uiters waardevolle inligting – onontbeerlik) te punt. Baie dankie aan almal wat geantwoord het. Die antwoorde is verwerk:

1. Die wenner met 'n hoë gemiddeld van 8.5 (uit 9) en 'n lae standaard afwyking (m.a.w. die respondente het nie baie verskil nie) is beriggewing oor BLUP teelwaardes soos wat is dit, basiese inligting, benutting daarvan en voordele.
2. Die naas-populêrste, beide met 8.0, was (i) Nuwe ontwikkeling/navorsing soos telers wil meer ingelig wees, hou my op hoogte en (ii) Berigte oor aankoop van bulle m.a.w. bul seleksie, bul se belangrikheid in kudde verbetering. Alhoewel dieselfde puntetal was die eenstemmigheid van (i) hoër as (ii).
3. Tussen 7.5 en 7.9 was die volgende (i) Berigte oor die waardevolle inligting wat deur die BREEDPLAN stelsel aan telers beskikbaar is, (ii) Wenke aan telers oor korrekte aantekening/prestasie toetsing en (iii) Voordele, deelname en koste van prestasietoetsing.
4. Onder aan die lys (rondom 7.0) was (i) Beriggewing oor visuele evaluasie (beoordeling) en (ii) die stoetbees industrie in syfers.

Ons neem ook kennis van die antwoorde op ons vraag oor watter ANDER artikels geplaas kan word. Uit gesprekvoering en email kommentaar wat ek oor die afgelope jaar van eNUUS lesers ontvang het blyk dit dat, afgesien van 'die web-handleidings', korter beriggewing verkies word en dat ons ook meer moet berig oor basiese aspekte soos: Wat is 'n TKP'; ander basiese grondliggende terme; praktiese demonstrasie oor meting (teler weet byvoorbeeld nie dat hulle self diere kan punt); 'n dood eenvoudige handleiding oor 'BLUP' vir my kommersiële kliënte; hoe 'lees ek' 'n veiling-katalogus; meer oor basiese teling aangeleenthede en uitbou van die 'Neutedop' rubriek.

Met algehele gemiddelde van 7.8 in bovermelde opname kan ons tevrede wees. Mnr. Wessel Hatting, die Voorsitter van die LRF se “Die LRF/Breedplan eNUUS is doelgerig en toonaangewend vir ons bedryf. Gebruik dit gereeld as 'n verwysings raamwerk vir die toepassing en bestuur van jou boerdery en besigheid.” Dr. M Bradfield die LRF bestuurder se mening oor die antwoorde is in sy voorwoord ingesluit.

4. New stockman's school for new farmers

In a first for South Africa, the local livestock industry has come together in a concerted effort to make a significant and real contribution to the fortunes of new stock farmers. Dr M Bradfield organizer of the new venture, head of BREEDPLAN® in Southern Africa and administrator of the Livestock Registering Authority (LRF) reports.

"Landbouweekblad, South Africa's biggest farming magazine, The LRF, a body representing many of the large cattle breed societies, BREEDPLAN®, a major beef improvement scheme in the country, Pick n Pay, Pfizer Animal Health, Molatek Animal Feeds, Landbank, Taltec Equipment, Unistel, Rudd Scales and Sparta Beef have all thrown their weight behind the Landbouweekblad Stockman's School for Beginner Farmers. The National Department of Agriculture and NERPO have also endorsed the programme.

Hosting some of the best minds in the industry, the school will provide a unique training opportunity especially designed for new farmers, complete with practical on-farm and feedlot training sessions. As the single biggest farming activity in the country, any improvement in the livestock sector can have a significant economic impact, both on a macro as well as micro level. It can create jobs, help eradicate poverty, and establish on a firm economic footing the farmers we need to feed the country.

We wanted to be part of the solution, not the problem, and this school can make a significant contribution towards improving the bottom-line of our beginner farmers. Such ventures have worked very successfully in Namibia and there is no reason that it won't be a success in South Africa.

Based on the highly successful Aldam Stockman's School for Commercial Farmers, which every year sports some of the best international minds in stock farming, the new venture lists among its impressive line-up of speakers. The program is largely focused on the practical application of farm management, pasture science, feeding, breeding, animal health and covers the economic aspects of running a successful farming enterprise. A whole day will be spent at SPARTA Feedlot. The School does not target any specific demographic group but is open to all South African producers whom are starting or at the beginning stages of their livestock farming enterprises and whom are keen to learn from the very best industry experts."

The course will run from 30 July to 3 August, is heavily subsidised by the sponsors and costs R3 500 per delegate. The price includes all meals, course material and lodging. Bookings close on Monday, 25 June 2012, and registration forms can be downloaded at www.stockmanschool.co.za/home/stockmanschoolforbeginnerfarmers/registration or contact Charmaine Alberts at 051 8211783

5. Geluk SA Holstein (1912 – 2012) van alle LRF genootskappe

Oor die eeufees vieringe in Bloemfontein en ander aktiwiteite later vanjaar. Die suiwel-bees wêreldleier.

Die globale suiwelbedryf word deur die Holstein oorheers. Volgens Cassell beloop die wêreldwye Holstein populasie 25 mil. (ek aanvaar hy verwys na geregistreer en graad) gevolg deur Brown Swiss (7mil) en Jersey (1mil). Die jongste fantastiese produksie prestasies van die ras in Suid-Afrika verskyn in hierdie eNUUS as "**Holsteins die wenner in melkproduksie**" en "**Stoet Holstein staan uit.**"

Was hulle die eerste geregistreerde ras in SA? Amper, die Afrikaners was eerste met 'n genootskap in Junie 1912 (volgens *Bonsma* sonder enige registrasie standaard) en toe die stigting van die tweede telersgenootskap in SA naamlik die Friesland Genootskap in Oktober 1912 in, waar anders, Bloemfontein. Die eerste direkte SA Stamboek registrasies was al in 1906 in Volume 1 naamlik twee bulle van Elsenburg Landbouskool (ja, skool). Vir die interessantheid, die derde amptelike genootskap was die Shorthorn in dieselfde jaar gevolg deur South Devon (1913), Ayrshire (1916) en Hereford (1917).

Dit is die trotse verlede van die Friese. Vandag se bestuurder van die SA Holstein berig oor hulle 100-jarige bestaan.

"Eerstens alle eer aan ons Hemelse Vader vir die voorreg wat ons gegun is om hierdie mylpaal te bereik!

Dié eeufeesviering van SA Holstein het plaasgevind in April 2012 in Bloemfontein en ons opregte dank en waardering aan ons borge, wat dié geleentheid vir ons moontlik gemaak het nl.: **WWS; ABS; Semenzoo Italy; Haysgenetics International; Absa; Semex; Meadow; Tag & Cogent; Taurus; Parmalat; Clover; Genimex; Landbank; CRI; DeLaval; Eco Afslaers; Four Lakes; Dairymail; Veeplaas; Alltech; Vrystaat Holstein Klub, Novice Winner (A Masterson) en Van Loveren/Namaqua Wines** – Baie Dankie!

Die vooraf beplanning en reëlings is deeglik en intensief gedoen en alles was in plek. Besoekers van oor die land en so vêr as Italië; Kanada; Amerika, Australië en Nederland het die verrigtinge bygewoon! Vir die Nasionale Kampioenskappe was 183 diere ingeskryf deur 32 vertoners. Die beoordelaar, mnr. Charlie Will (Amerika) is deur World Wide Sires geborg en hy het hom goed van sy taak gekwyt.

Dit was 'n week vol opwinding met 'n besige program. Die vertoners is verwelkom met 'n braai deur die Vrystaat Holstein Klub. Dié Nasionale Kampioenskappe was bo-aan die lys en het groot belangstelling gelok. Prag diere is vertoon en die 2012 Nasionale Kampioen is 'Puttergill Final Lisa 07.56' van KD Lang, Howick.

'n Gholfdag is vir die manne gehou en het groot mededinging en kompetisie meegebring. Die dames het 'n ontspannende oggend gehad by 'n SPA en kon vir 'n wyle vergeet van alles. Die Jeugskou was 'n belewenis en daar is verseker groot opkomende Holstein telers in die toekoms!

Die aand is met die bekende "Sale of Stars" veiling begin en afgesluit met 'n skemerkelk onthaal. Die kampioenskappe was egter die hoogtepunt van die week. SA Holstein het dan algeheel die interras verower. Die week is afgesluit met 'n glansryke onthaal waar die toekennings en trofees oorhandig is.

Verdere beplanning is die verrigtinge in November. SA Holstein beplan om sy Algemene Jaarvergadering op Donderdag, 1 November in die Kaap te hou, waar ook van die oudste en grootste kuddes in die land is.

Die voorlopige beplanning is dat ons drie van die grootse kuddes op Donderdag, 1 November met toerbusse gaan besoek. Vir lede van ander provinsies reël ons busgroepe om van verskeie punte te vertrek. Donderdagnmiddag 'n ligtemiddagete by Sundringham, na afloop van die Algemene Jaarvergadering met 'n spreker wat ons gaan toespreek oor waarheen met teling vir die volgende 100 jaar, wat kan ons verwag en wat is in die pyplyn vir seleksie in die Holstein ras.

Donderdagaand is die "Night of the Legends" met 'n ete by legendariese 'DeGrendel' wat een van die oudste kuddes in die land is, asook die bekendstelling van die 100 Jaar Eeufeesboek. Vrydag, 2 November is dit die Cape Dairy Experience met die Wes Kaap Holstein Kampioenskappe, wat verlede jaar 'n absolute belewenis was. Die Wes Kaap Holstein Jeugskou en kampioenskappe vind ook plaas die Vrydagaand.

Dis nie net vir telers nie, almal word uitgenooi. Kontak ons -

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E-mail: herman@saholstein.co.za

www.saholstein.co.za

6. Suider-Afrika se populêrste stoetbees webtuiste

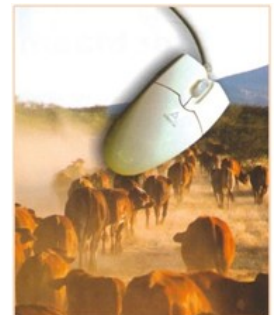
Die populariteit van enige webtuiste word gemeet aan die getal gebruikers of aantal transaksies. Die LRF/BREEDPLAN rasse in Suid-Afrika en Namibië het verlede jaar 'n miljoen transaksies oorskry. Dis vër meer as enige ander stoetdier internet diens in SA.

Nog 'n groot voordeel van die BREEDPLAN® stelsel is hulle fantastiese internet-gebruikersplatform waar 'n magdom inligting gratis en sonder lastige registrasie of wagwoorde aan almal beskikbaar gestel word. Dit sluit in omvangryke prestasie en stamboom inligting van elke dier, lewendig of dood, aktief of gekanselleer; volle besonderhede van alle telers; 'lewendige' veiling katalogusse, daaglik bygewerk, met foto's en opsoek geriewe volgens die koper se behoeftes; inteling koëffisiënte vir beplande parings; KI-bul besonderhede met foto's; spesiale seleksie indeks opsoek geriewe en vele meer.

'Breedplan-rasse' het verledejaar 1,092,190 web opsoek transaksies aangeteken en dis interessant dat veral die rasse met baie web-veiling katalogusse goed gevaar het (Figuur 1).

- Die periode met die meeste transaksies was van Julie tot Oktober met Desember soos in die verlede die stilste maand (Sien figuur 2).
- In SA (38%) en Namibia (70%) het die Brahman die meeste besoeke getoon;
- Die grootste persentasie toename by rasse met meer as 25,000 transaksies was SA Brangus 71%, SA Limousin 47%, SA+NamSimbra 22% en SA+NamSimmentaler 18%. SA Holstein en in 'n mindere mate SA Brahman het 'n afname getoon.

BREEDPLAN voorsien aan die genootskappe 'n funksie waardeur die populariteit van die verskillende web-dienste gemonitor kan word. Dit is veral die volgende dienste wat aandag trek:



- By rasse wat veilings op die stelsel plaas, en glo my dit werk fantasties, is lot-opsoek funksies en soektogte baie populêr;
- Opkyk van stambome tot soveel as 12 generasies (hang af van hoeveel die genootskap destyds opgeneem het) bly 'n wenner;

Teelwaarde navrae in tabel of skets vorm sowel as 'n soekfunksie na diere wat aan sekere prestasie vereistes voldoen word al hoe populêrder.

Fig 1

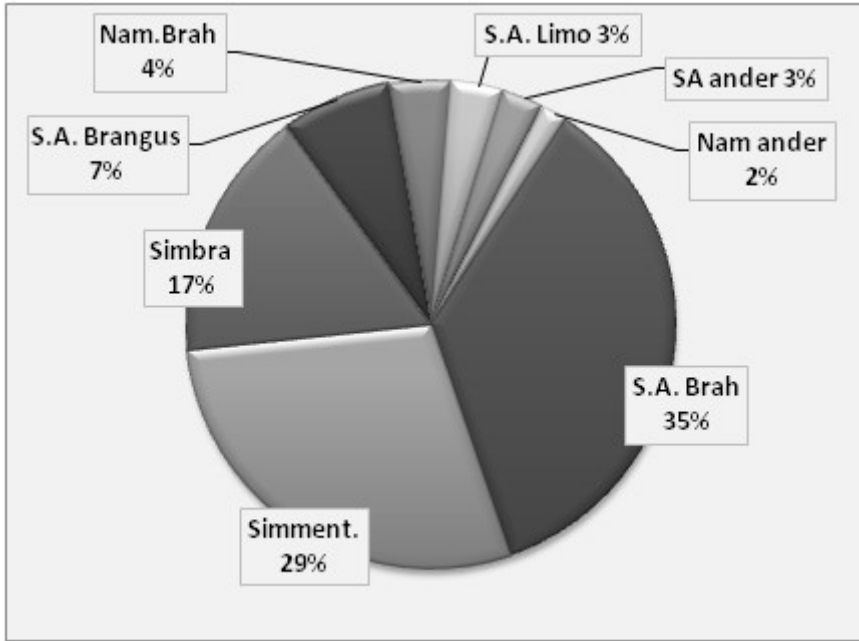
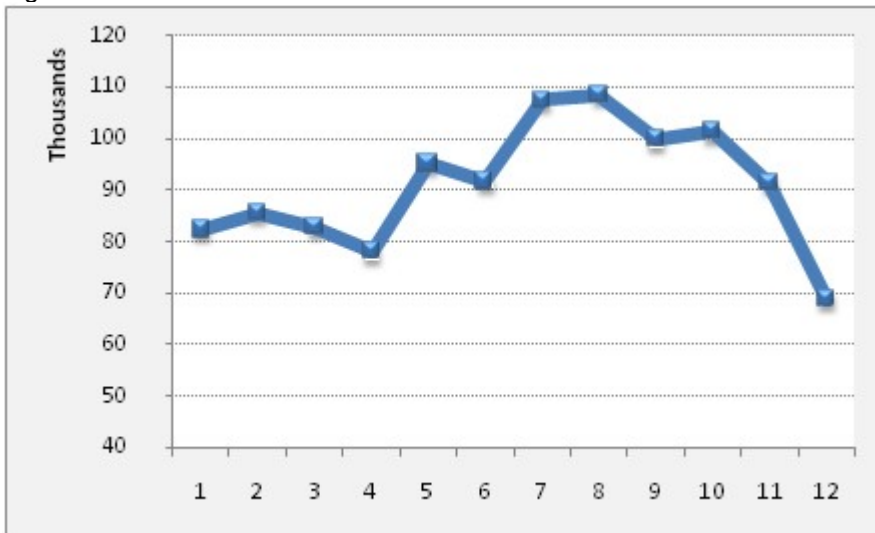


Fig 2



7. It feels good to be part of a world leader

Some interesting recording data was released at 'Beef Australia 2012', the biggest and most comprehensive beef cattle event worldwide.

Around 85,000 people attended the event including more than 600 registered international visitors from 37 countries. It is held in Queensland, Australia every three years. NAMPO, which does not only cover beef cattle but everything that has an impact on farming, has an attendance of 71,100. More details of this great event:

- It involved almost 4500 cattle and 31 breeds were judged;

- More than 300 delegates including a number of South Africans attended the International Beef Cattle Genetics Conference which showcased the latest in genetic and technical research;
- Contributions to the future sustainability of the industry consisted of 32 industry seminars attended by 2600 people, and more than 3000 children from more than 100 schools.

Messrs Steve Skinner and Jack Allen gave interesting talks on BREEDPLAN technology and services at the conference and pointed out that it is the world's most widely used genetic evaluation system for beef cattle which involves a database over 40 million pedigree animals, 60,000 breeders (South Africa and Namibia together have 4400 beef and dairy cattle breeders) and 460,000 beef registrations per year. They now produce BLUP EBVs/EPDs on 22 traits, DNA data is included in marker-assisted EBVs, they handle across-country evaluations routinely, the 'BREEDPLAN® Internet information System' gets 3 million pages per month and their Research&Development budget amount to R16.8 million per year.

Performance recording

In the following are the 2009 drop weaning weights used in the analysis for the various breeds, societies and countries. Breeds that joined after that and those that only use the BREEDPLAN registration system are not included. What a wonderful opportunity for breeds with good genetic linkage to utilize BREEDPLAN's experience and knowledge in across-country genetic evaluation.

Breed	Society	Wean Wts	Countries
Angus	5	62,757	Canada, United Kingdom, Australia, New Zealand, Namibia
Belmont Red	1	1,028	Australia
Brahman	5	18,699	USA, South Africa, Namibia, Australia, Zimbabwe
Braford	4	1,312	USA, South Africa, Namibia, Australia
Brangus	4	4,954	USA, South Africa, Namibia, Australia
Charolais	4	8,565	United Kingdom, Namibia, Australia, New Zealand
Devon	3	933	United Kingdom, Australia, New Zealand
South Devon	4	4,518	USA, United Kingdom, Australia, New Zealand
Droughtmaster	1	2,649	Australia
Hereford	8	117,167	USA, Canada, United Kingdom, Australia, New Zealand, Namibia, Uruguay, Argentina
Limousin	4	4,616	South Africa, Namibia, Australia, New Zealand
Murray Grey	4	4,267	USA, United Kingdom, Australia, New Zealand
Nguni	2	672	Namibia, Zimbabwe
Santa Gertrudis	4	10,650	USA, South Africa, Namibia, Australia
Shorthorn	3	7,935	United Kingdom, Australia, New Zealand
Simbra	3	7,464	South Africa, Namibia, Australia
Simmental	6	13,082	South Africa, Namibia, United Kingdom, Australia, New Zealand, Zimbabwe
17 Breeds	65	271,268	11 countries

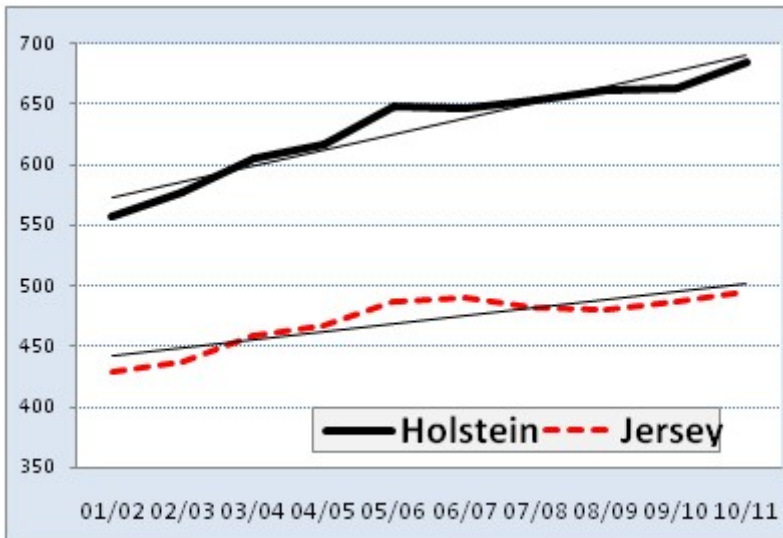
8. Holsteins die wenner in melkproduksie.

Die jongste melkaantekening syfers vir suiwel koeie in Suid Afrika. Geluk aan LRF lid SA Holstein

Vergeleke met ander geregistreerde melkaangetekende suiwel ras koeie vaar die SA Holstein uitstekend. Hier die jongste syfers per laktasie vir Holstein vergeleke met die ander suiwel rasse tussen hakkies:

	Laktasies	kg melk	kg bottervet	kg proteïen
Holstein	28,260	9830	369	316
Ander suiwel rasse	37,220	6355	324	270

Die kg vet+proteïen vir die twee getalsterkte geregistreerde rasse word in die grafiek vertoon. Geregistreerde Holstein boere het kg vet/protein oor tien jaar met **23%** verhoog vergeleke met **16%** van die Jersey.



Bron: LNR Jaarverslag

Praat van melk.

Die Holstein koei 'Smurf' van Kanada het die wêreldrekord vir die hoogste produksie. Sy het al 478,163 kg melk in 15 jaar geproduseer en produseer steeds. Volgens haar eienaar Eric Patenaude is dit gelykstaande aan meer as 1 mil glase melk – cheers!



9. Santa Gertrudis telers sluit aan by BREEDPLAN Santa telers in Suid Afrika hergroepeer.

Die Santa Gertrudis telers in Suidelike Afrika het vroeër vanjaar belangrike besluite geneem. Namibia telers wat voorheen deel van Suid Afrika se Santa genootskap was is nou onder een dak tesame met ander Santa telers in Namibia. Hulle registrasie en prestasie aangeleenthede word deur die Namibia Stud Breeders' Association en BREEDPLAN gehanteer. Die Suid Afrikaanse telers wat Stamboek en die LNR as diensverskaffers gebruik het, is nou by BREEDPLAN. Welkom en julle gaan nie spyt wees nie.

Die groot voordeel van hierdie nuwe bedeling is dat alle telers in Suider Afrika se prestasie data nou saamgevoeg is en BREEDPLAN die genetiese evaluasie sal hanteer. Hoe groter die databasis hoe betroubaarder die teelwaardes. Nog 'n groot plus is dat die Namibia en SA Santa stoeterie baie goeie genetiese skakels het.

Ek dink egter die beste kom nog en dit is as SA, Namibia, Australië en die VSA in die 'Super 4' saamspeel en BREEDPLAN versoek om 'n gesamentlike genetiese analise te doen aangesien al vier lande al klaar by BREEDPLAN is. Gaan dit nie lekker wees om jou top stoet bul se genetiese meriete te vergelyk met die top bulle in die ander lande nie.

Terloops, die Santa genootskap van Suid-Afrika is 'n stigterslid van die LRF en dus al vir jare 'een van ons'.

10. Free useful reports for breeders

Here are some of the BREEDPLAN reports that are available to all breeders in performance recording. Make use of these important reports and contact your breed society for details.

Herd report and comparison to the breed

After each annual or bi-annual breed analysis breeders get a very important report covering EBVs, accuracies and other details for:

- Sire's used past 3 years;
- Cows that calved in the past 3 years;
- Heifers and bulls (without progeny) younger than 4 years.

The Herd Report also contains graphs showing the genetic trend⁽¹⁾ of the herd over many years compared to the overall genetic trend for the breed. This enables a breeder (i) to monitor the genetic progress of his herd in the recorded traits over years and (ii) to compare the genetics of his herd with the breed.

⁽¹⁾ Because the BREEDPLAN analysis eliminates the effect of changing seasons and feeding practices over time it is possible to calculate the **genetic** trend for each trait.

More details in article 14 of the following eNEWS:

www.lrf.co.za/Newsletter/October/October%20Newsletter.pdf

Get updated EBVs after every weighing

BREEDPLAN has an useful 'Interim Analysis' facility which is managed by the society office each time the breeder submits at least 25 **new** weaning, 400 or 600 day weights. This analysis uses the latest national evaluation EBVs for the herd as a starting point, and updates the animals EBVs based on the new performance information.

Interim reports are very handy to also assist in selecting culls shortly after you weighed and to obtain the latest data for sale catalogues.

More details in article 13 of the following eNEWS

www.lrf.co.za/Newsletter/October/October%20Newsletter.pdf

Who are the breed trait leaders

Sires and dam's that excel in performance tested traits are published as Breed Trait Leaders. To qualify as a sire leader the sire must have a good EBV with a high accuracy. Many sires qualify for more than one trait. There is also a list of selected Published Sires and Young Sires which meet certain criteria.

More details in eNEWS 1/1, article 4 and eNEWS 1/2 article 10.

www.lrf.co.za/Newsletter/March/March%20Newsletter.pdf
www.lrf.co.za/Newsletter/July/July%20Newsletter.pdf

Don't loose out on this one, it might be your top bull.

As part of the on-going verification of the information being added to your database, BREEDPLAN checks the variation in performance records between animals within a contemporary group. A certain degree of variation is expected within each group but if when the difference between a performance record for an animal and the average of all animals in the contemporary group is greater than we would normally expect for the trait measured, the record for this animal is flagged as an **outlier**.

A list with weights and other info of the relevant group and the flagged outlier-animal is supplied to the society which must submit this to the breeder with instructions. The breeder will check the actual weight/measurement submitted for that animal and advise the society staff of corrections.

If the society does not inform the breeder of this or the breeder does not respond, the outlier-animal is excluded from all BREEDPLAN analysis's. This will be a disadvantage to the extra fed show/sale bull which by mistake was not flagged as such on the weighing list. In fact, I found that this happens to many of the good bulls who are prepared for sales and/or shows.

More details in article 39 of the following eNEWS:

[www.lrf.co.za/Newsletter/July/July Newsletter.pdf](http://www.lrf.co.za/Newsletter/July/July%20Newsletter.pdf)

Mating predictor

Check if the new sire you are considering is related to your cowherd. A sire and cow may initially appear to be unrelated, but if they share several common ancestors three or four generations back, their offspring might suffer from inbreeding. The BREEDPLAN internet mating predictor checks the entire pedigree and will report the following for every cow in your herd (or specific cows) and the new sire. This report can also be printed.

- The inbreeding level or coefficient;
- The expected EBVs of the unborn progeny;
- The extended pedigree of the unborn calf;

More details in article 23 of the following eNEWS:

www.lrf.co.za/Newsletter/October/October%20Newsletter.pdf

Is your herd sufficiently linked to the breed.

In order to compare your animals with the breed you must have enough links to other herds. Linkage is calculated during the BREEDPLAN analysis and is dependent upon the information available at that time. Linkage is expressed in various degrees and an unlinked herd can get good linkage in the next evaluation.

A linkage report is issued after every analysis to the breed society. Herds without sufficient links must be contacted by the breed society and encouraged to improve their linkage using sires that are already used in at least two herds and have high (>85%) accuracy for at least the weight traits. If societies ignore this important report owners of unlinked herds will never be aware of this important disadvantage.

More details in article 6 of the following eNEWS:

www.lrf.co.za/Newsletter/July/July%20Newsletter.pdf

Where does an animal rank within breed

Use this list, called the Percentile Report, to indicate where your animals rank in any of the tested traits compared to all the calves born in the breed two years prior to the last analysis (i.e. two year old bulls to be used for breeding). This handy ranking-report is very helpful to commercial bull buyers.

It is supplied to breeders together with their Herd Report (see above 'Herd report and comparison to the breed") and some societies publish it on their web-sites and even in sale catalogues. It is also downloadable from the BREEDPLAN search site (called 'Click for percentiles' at the bottom in the EBV table).

When do I weigh what.

The BREEDPLAN weighing list service is supplied by the society to breeders which do not use the HerdMASTER programme or other methods to create weighing lists. It involves a list of animals with their sex, birth dates, group description and the suggested weigh date for each group.

Farm Report

Some societies generate a very useful breeder Farm Report which the society inspector will discuss with the breeders during the consultation visit. This report normally contains all the active animals or animals above a certain age with their age, reproduction information (age 1st calving, ICP, days since last calving) and latest EBV's for all the traits and the accuracy. Proper selection is not possible without this report.

Performance list

To check which weights, measurements, scores and scans were submitted by the breeder, the society office can generate a list which includes all the animals born in a specific year together with the recording date, age, management group and more.

Completeness of Performance

Read more on this important new report in the next chapter "Another new product released by BREEDPLAN"

11. Another new product released by BREEDPLAN

A new product known as "Completeness of Performance" will enable breeders, the society and commercial producers to easily identify performance recording herds that are recording complete performance information on their animals.



There are many articles I published in the eNEWS about incomplete or selective recording which I maintain is a big problem in Southern Africa. Fortunately BREEDPLAN released their "Completeness of Performance" product which will hopefully improve 'complete testing' or 'total herd recording' to the benefit of everybody in the industry. Comment by an Australian breed society official: "The primary objective of this new BREEDPLAN product is to increase the amount of performance information being collected by the beef stud industry. Ultimately an increase in the amount of information being recorded on animals will increase the accuracy of the selection decisions being made by both commercial bull buyers and stud breeders, and will result in an increase in the rate of genetic improvement that is being achieved by the beef industry as a whole."

Some of the reports available to society and breeders are:

- A summary of the pedigree (births), weight, carcass and fertility information that has been recorded in recent years by the breeder;
- How "complete" the information is – selective weighing/measuring is incomplete;
- Identification of areas in which additional performance information could potentially be recorded;
- A herd data quality rating system or star rating for each BREEDPLAN member based on correct recording.

The LRF strongly recommends that breed society's utilize this system in classifying herds in "completeness" of their performance information from say 0 (no participation) to 5 (complete testing). This star-rating, recognizable by an type of emblem in Journals/web sites/sale catalogues, will enable bull buyers to easily identify herds that are recording complete performance information on their animals. We also recommend that 'completeness of reporting' is considered in any society awards which are based on performance.

Breeders of participating societies have access to these reports via their internet Member Login Area and should contact their society for assistance. Alternatively, members who cannot access their report in this manner should contact their office for a printed version of the report which can be mailed or e-mailed as a PDF report.

12. Vir jou kommersiële bulkoper.

Daar is 'n behoefte vir 'n duidelike en kort beskrywing van "BLUP" vir kommersiële bulkopers. Ek hoop hierdie voldoen aan die versoek

- Die teelwaarde (EBV, BLUP) is die dier se genetiese vermoë m.a.w. dit wat aan die nageslag oorgedra word. ⁽¹⁾
- Teelwaardes word wêreldwyd by alle rasse as die belangrikste seleksie hulpmiddel erken. ⁽²⁾
- Deur middel van teelwaardes kan diere binne 'n ras, tussen kuddes, oor jare en selfs oor landsgrense heen met mekaar vergelyk word. ⁽³⁾
- Teelwaardes is nie oor rasse heen vergelykbaar nie. ⁽⁴⁾
- 'n Teelwaarde word uitgedruk in die eenheid van meting (kg, %, cm) en vergelyking geskied deur die verskille in EBVs tussen diere. ⁽⁵⁾
- Teelwaardes verander jaarliks en het 'n gelyke kans om op- of afwaarts te verander. ⁽⁶⁾
- Die betroubaarheid of voorspelbaarheid van 'n teelwaarde word deur 'n % akkuraatheid-syfer aangedui. Hoe hoër die % hoe beter. ⁽⁷⁾
- Die hoogste teelwaarde is nienoodwendig die beste. ⁽⁸⁾



⁽¹⁾ Die grootste gedeelte ($\pm 70\%$) van wat ons in 'n dier sien word deur die omgewing beheer (kos, bestuur, weer) en die deur genetica. Jy kan nie die genetiese komponent afsonderlik van die omgewing se invloed sien nie maar BLUP kan dit beraam en derhalwe gebruik ons BLUP tegnologie om te bepaal wat aan die nageslag oorgedra word. In eenvoudige taal: Dis die enigste hulpmiddel om deur die veilingsbul se vet te sien.

⁽²⁾ Jy kry teelwaardes vir gewigte, melk, vrugbaarheid, kalwingsgemak en karkaseienskappe. Dit word bereken vanaf prestasie en stamboom inligting van diere en hul verwantes in verskeie kuddes deur gebruik te maak van gesofistikeerde

statistiese prosedures en uiters kragtige rekenaars. Rekordhouding van prestasie en stambome of kortweg stoetteling is noodsaaklik.

⁽³⁾ Jy kan die genetiese prestasie van 'n 3-jaar oue bul by 'n veiling in Pretoria vergelyk met 'n jaaroud bulletjie van dieselfde ras in Windhoek. Anders gestel, 'n bul in 'n kudde met topbestuur en baie kos is geneties vergelykbaar met een in 'n harde ekstensiewe omgewing. D.m.v. EBVs kan die vleis of melk beesboer sorg dat die nuwe bul of semen beter is as die vorige een om sodoende die koeikudde voort durend te verbeter.

⁽⁴⁾ 'n +10 speengewig Simmentaler en +10 speengewig Limousin se genetiese teel potensiaal is nie dieselfde nie. Gebruik die rasse teelwaarde rangorde tabel om die rangorde binne die ras te bepaal.

⁽⁵⁾ 'n Plus +28 sê maar 400 dae gewig bul is nie 28 kg beter as die ras nie maar 18 kg beter as die +10 bul van dieselfde ras.

⁽⁶⁾ Verandering geskied 'gelukkig' deur die gedurige toevoeging van meer inligting

⁽⁷⁾ 'n Algemene reël is dat diere op grond van EBVs vergelyk moet word, ongeag akkuraatheid, maar wanneer 'n bul vir 'n spesifieke doel uitgesoek word (*byvoorbeeld hoog in melk*) kies een met beide hoë teelwaarde en akkuraatheid.

⁽⁸⁾ Handhaaf 'n goeie balans tussen die verskillende eienskappe en moenie dat klein verskille u pla nie. Oordeel kragtens die boonste, middelste en onderste derde van die telersgenootskap se rangorde tabel.

13. The business end of the bull

“When I buy a bull, I always start by looking at the back end of the bull. That’s where the business end is. I want to see large testicles and a well shaped scrotum. That’s the most important part of a bull. No matter how good he is otherwise, if he can’t sire calves, he’s no good to me. It doesn’t matter if he is the best walking bull in the world, if he hasn’t got the equipment to do the job he’s no good.” (Astute US beef producer).

Anything associated with fertility is of utmost importance and scrotum circumference is one of those. Judged by the number of recordings on breed society systems, the importance of scrotal size is very much underrated in Southern Africa. It actually should be more important than any of the weight traits recorded by breeders because fertility will always win weight. Research conducted in many countries with many breeds by hundreds of scientists show that selection for positive scrotal size EBVs⁽¹⁾ will - .

- improve semen quality and quantity;
- decrease age at puberty;
- decrease daughters age of puberty;
- increase life time reproductive potential of daughters.

⁽¹⁾ Since the EBV reflects relative genetic merit without the influence of an environment (for example feeding) it is a better selection tool in comparing bulls across herds and years than the raw scrotal measurement.

According to numerous publications scrotal size is moderately to highly heritable in beef bulls and selection for bulls with positive scrotal EBVs will improve the above mentioned characteristics (*Brinks; Perry et al.; Palomares; Wolfe; Chenoweth; Nelson.*)

Scrotal size is of special importance in Brahman and Brahman based composites like Simbra, Brangus and Braford. *Randal* reports that these breeds, compared to bulls of European breeds, have "(i) lower calving rates, (ii) reach puberty at an older age and (iii) have a lower sperm quality score." He argues that this probably related to the smaller scrotal size of these breeds and that selection for increased scrotal size can improve reproduction efficiency of Brahman and Brahman based composites.

Breeders should contact their society for the minimum scrotal requirements.

More advantages in recording scrotum

1. Not many breeders are aware of another significant advantage of scrotal size selection. Because of its high correlation with yearling weight (*Smith et al.*, 0.63) and low correlation with birth weight (0.08) selection for larger scrotal EBV's should simultaneously result in increased growth from birth to yearling while keeping birth weights relatively constant.
2. The high heritability for scrotal circumference and low heritability for semen quality traits on the one side, and the high desirable genetic correlations between scrotal circumference and the mentioned semen quality traits on the other side, suggest that direct selection for increased scrotal circumference size would be most effective in bringing about improvement in semen quality traits. (*Martínez-Velázquez et al.*)
3. *Boyles* found these positive correlations between scrotal size and female reproductive traits: (i) 0.69 with age at heifers first conception, (ii) heifer pregnancy rate (0.64) and (iii) calving interval (0.12). Shows you, the chances are good that selection for scrotal size may improve a number of female reproductive traits.

How to measure

It is an easy measurement which is determined by the breeder. Measuring sticks are available from most breed society's and their technical staff can demonstrate the how, what and when of measuring. Watch out for testicles that are not fully descended because they may have wrinkles on the scrotum that will inflate the measurement. It is important to get the testicles descended in cool weather to obtain an accurate measurement. The loop of the measuring stick must be placed around the widest part of the scrotum and use a consistent technique (same person) for all the bulls.

Scrotal measurements can be recorded between 300 and 700 days of age. British and Continental breeds are best measured around 450 days whilst Brahman and Brahman based composites due to later puberty and smaller scrotums should be measured from 18 months to the cut off age of 23 months (700 days). Some important recording aspects:

- weigh the bulls at the same time;
- measure as many as possible in one large group on the same day;
- measure ALL the bulls including the culls;
- mark bulls that have received different treatment (*fed for show or sale*) on the list because only like treated bulls will be grouped together in the analysis
- individual 'out of breeder group' scrotal measurements taken at shows are of no use for the BLUP analysis.
- The most effortless way to submit measurements and weights is with the HerdMASTER programme.

Is bigger better ?

I am not aware of a study proving a correlation between scrotum circumference and length but follow-up telephone calls by our office to buyers of bulls with an extra large scrotum (measured at phase C) confirmed that when older, these bulls have increased incidences of scrotum injury. This was for Simmentaler bulls but my guess is that this is not applicable to Brahman and Brahman based composites were the aim should be for maximum scrotal size. A Canadian vet reports that a circumference above 38 cm for yearling British and Continental breeds does not result any more semen production.

Some background for our judges

The testicles are located outside of the body cavity in the scrotum which is essential for normal sperm formation that occurs at a temperature 4 to 6 degrees below normal body temperature (testicle thermoregulation). This is done by means of a temperature sensitive layer of muscle located in the wall of the scrotum. This muscle relaxes when hot and contracts when cold. In warm temperatures relaxation increases the relative length of the scrotum, thus moving the testicles away from body heat. In cold weather, the scrotum shortens and the testicles are held close to the warm body .

Excessive fat deposits in the neck of the scrotum like you often find in show bulls may interfere with temperature regulation and will result in lower fertility, infertility and decreased stamina (libido).

14. Snert in, snert uit.

Kwaliteit syfers en korrekte stambome is wêreldwyd die belangrikste vereistes vir 'n kudde en ras se BLUP analise. Voer die stelsel met snert (foutiewe inligting) en jy kry snert terug. BREEDPLAN het nou 'n nuwe fasiliteit aan genootskappe voorsien waardeur selektiewe toetsers ontbloot word.

Net soos by stambome, is die integriteit van 'n teelwaarde (EBV) afhanklik van die integriteit van die informasie wat deur telers voorsien word. Die gewigte/mate en teel besonderhede (vader/moeder) moet korrek wees want beide word vir die berekening van teelwaardes gebruik. Indien hierdie inligting onakkuraat is sal die teelwaarde foutief wees en teel die bul nie soos sy teelwaardes nie. Ek is van mening dat die voorkoms van foutiewe aantekening (sien onder) groot is maar dat dit meestal onbewustelik geskied weens onvoldoende opleiding van telers deur hulle genootskappe. Breedplan en die LRF se Dr. Bradfield werk hard aan dit maar opleiding van telers is net soos beoordelaars-kursusse inderwaarheid 'n genootskap aangeleentheid.

Goeie nuus

Gelukkig het BREEDPLAN, na jare se navorsing in hierdie verband, 'n nuwe stelsel aan genootskappe beskikbaar gestel waardeur onder andere telers wat selektief toets identifiseerbaar is. Daar is 'n aantal baie handige verslae en ons beveel sterk aan dat telersgenootskappe hul eie toets-norme daarstel en dat hul personeel telers wat nie korrek aanteken nie identifiseer en oplei. Lees meer hieroor in hierdie uitgawe: "Another new product released by BREEDPLAN."

Van allergrootste belang is dat waar genootskappe toekennings op enige prestasietoets syfers baseer sodanige toekennings ook aan die toets-geloofwaardigheid norme voldoen. So byvoorbeeld behoort enige prestasietoets toekenning onderworpe wees aan 'n speen weeg retensie van sê maar ten minste 90% m.a.w. vir ten minste 90 van die 100 kalwers wat in 'n jaar lewendig gebore word (geboorte kennisgewing) moet 'n speengewig op die stelsel hê. Seleksie vind mos nie voor speen plaas nie en alle lewendige kalwers, geregistreer en geprul, is vir weging by speen beskikbaar.

Die 5 belangrikste toets-beginsels.

Hierdie is volgens my ervaring basiese vereistes vir kwaliteit aantekening:

1. Korrekte ouerskap maar meer spesifiek vaderskap. Verwys na berig oor ouerskap kontrole toetse in eNUUS 1/3.
2. Weeg ALLE diere insluitende uitskot diere ⁽¹⁾.
3. Hou weeg groepe so groot as moontlik – weeg eerder meer diere minder gereeld. Kalf seisoene help baie ⁽²⁾.
4. Groepeer slegs eners behandelde diere saam. Telers vergeet van die lemoen tussen die appels ⁽³⁾.
5. Handhaaf genetiese skakels met ander kuddes deur hulle bulle te gebruik of bulle aan hulle te verkoop, deur die gebruik van semen aandeel en/of KI bulle. ⁽⁴⁾

⁽¹⁾ "Moenie jouself verneuk nie". Deur slegs die 'beter diere' te weeg word hulle prestasie middelmatig omdat hulle swakker maats nie geweeg is nie en die eerste een wat dit agterkom is die koper in prestasie toetsing wat die bul se nageslag toets.

⁽²⁾ Omdat daar by klein groepe nie baie oorbly na verdeling nie. Groepe word bv. opgedeel in dieselfde geslag, moeder se koei-status (vers/koei), bestuur/voeding, binne 45 dae (200 d) van mekaar gebore en op een dag geweeg – Na verdeling moet daar ten minste 3 diere per groep wees met ten minste 2 vaders. Weeg altyd voordat verdeling plaasvind speen, kastreer, uitskot.

⁽³⁾ Diere wat 'anders behandel' was, wat 'n invloed op die dier of kalf se gewig mag hê, moet met eie-keuse letters gemerk word sodat hulle nie saam met die groep maats ontleed word nie. Dis logika dat jy nie die vetgevoerde skou of veilings dier saam met sy plaas-maats kan groepeer nie.

⁽⁴⁾ Vermey kluisenaar-teling. Genetiese koppelings is noodsaak om diere van verskillende kuddes met mekaar te vergelyk.

15. News from Namibia

Mr. Jacque Els, the General Manager of the Namibian Stud Breeders Association (NSBA) reports.

A need was identified for the training of producers in Namibia. During 2011 the decision was taken to present the first Stockman School in Namibia. This was held from the 13 – 15 March 2012 at the Windhoek Show Grounds, and was attended by 189 delegates. It was very well received and the next School is planned for 2014. Our sincere appreciation to all the sponsors who bought into the concept and whose contributions, made this possible.

At the beginning of December 2011 the African Huguenot Cattle Breeders Society of Namibia joined the NSBA. They currently have 8 breeders and 1 600 cattle.

For a number of years the Santa Gertrudis Breeders in Namibia were divided into two groups; those who were members of the NSBA and thus used the BREEDPLAN system and a group that affiliated with SA Studbook. At the beginning of 2012 the group who registered with SA Studbook, joined the rest of the Santa Breeders who were with the NSBA. This had a number of consequences. Firstly all the breeders were now united in one Breeders Society (17 breeders with 1 432 animals and 12 new breeders with 2 277 animals) and a united effort could be launched to promote the breed. All the data of the breed was now on one system and could be analysed together, providing for a larger unified database and more accurate information being available to the breeders. The “united” Santa Gertrudis breeders had their first combined EBV Group run during 2012. A total number of 290 Santa cattle belonging to 4 breeders, were scanned during the annual ultrasonic scanning of animals during March – May 2012.

In April 2012 the President of the Namibian Brahman Breeders Society, Mr. Mecki Schneider, the Chairperson of the NSBA Board, Mr. Rynovan der Merwe and the Manager of the NSBA, Mr. Jacque Els travelled to Ghanzi in Botswana to address a group of Brahman breeders on the possibility of joining the Namibian Brahman Breeders Society and the NSBA. Seven breeders showed interest in joining. Two months later the NSBA visited the Ghanzi Show to speak to breeders of other breeds about joining the respective Namibian Breeders Societies and the NSBA. Between 7 and 10 breeders indicated their interest in joining and thus to have their animals registered with a registration authority. These breeders include Beefmaster, Charolais, Pinzgauer, Santa and Sussex breeders.

16. It's all about progress

“Progress isn't made by early risers. It's made by lazy men trying to find easier ways to do something.” The easier way these days is to performance record and monitor progress by genetic improvement – as easy as that.

Dr M Bradfield at a very successful first Stockman's school in Namibia.

"We are immensely proud of what we have collectively achieved in the Namibian breeding industry in the last nine years. We have managed to help the Namibian Stud Breeders Association (NSBA) create a viable office running what is undoubtedly a world class system. We have managed to focus a significant component of the breeding industry on the value of recording and genetic improvement. The Internet Solutions system recorded nearly 120 000 page entries last year and we have collectively witnessed the growth in the NSBA in member numbers and breeds.

To remain competitive and to become a leader in Africa the Namibian red meat industry has in the field of animal breeding, three main challenges:

The **first** is getting your commercial producers to understand the potential monetary value that modern breeding methods can add to the genetic potential of their herd and how it translates into financial gain.

The **second** challenge is for your Stud Industry to move away from using only old fashioned methods for the selection of superior Seedstock. Here I am talking about using purely visual assessment to determine an animal's genetic worth.

Finally, the challenge to have the courage to trust and use the modern breeding technologies.

As easy as that

I know of no commercially focused abattoir that pays for cattle that have simply passed a visual appraisal test. The rationale for selecting on weight is simple:

- § Farmers can easily record weight.
- § Weight gain is heritable, and
- § Many cattle are sold by weight so heavier cattle make more money.

The figure below shows in red the genetic trend for Mr Willem Engelbrecht, a businessman from the Cape Province, and compares it to the rest of the breed. The first point to note is the impressive genetic gains made by the Simbra breed since 2004 (BREEDPLAN was introduced in 2002). There are thus many producers like Mr Engelbrechts selecting cattle on EBV's in this breed. Mr Engelbrecht has significantly increased the genetic component for weaner weights since selecting on EBV's. Most important, is the benefit to his commercial clients.

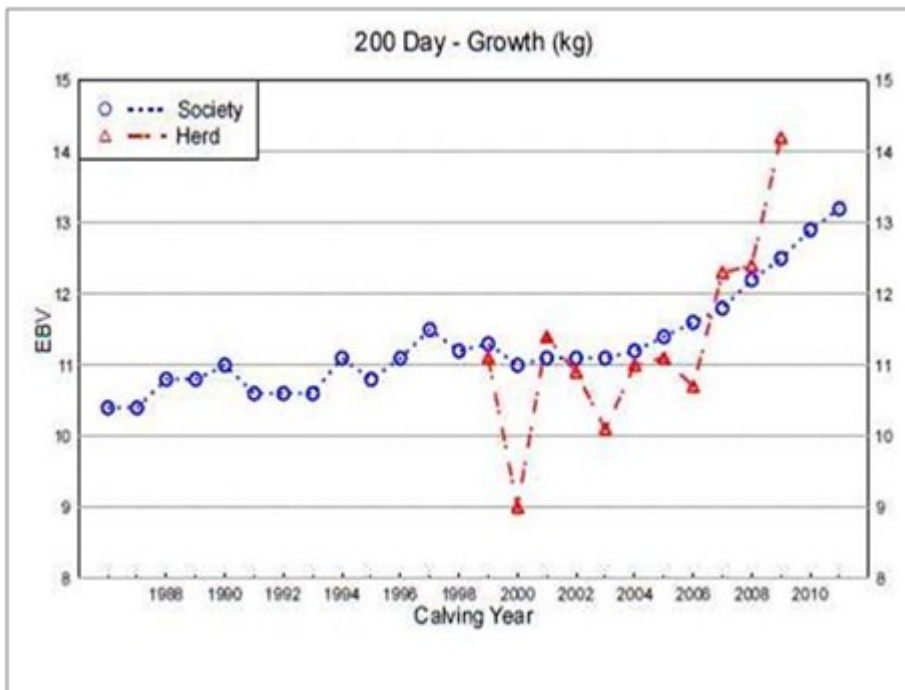


Fig 1; Simbra genetic trend for weaning weight. Note, this is the genetic component. The environmental component (i.e rainfall, farm effects, sex and feed have been adjusted).

These graphs are available to every breeder in BREEDPLAN for all the tested traits.

The challenge to the commercial industry in Namibia is to buy bulls based on proven performance

The ability of a cow to produce a calf every year has a huge economic benefit to the commercial producer. This ability is also under genetic control and can be measured. The challenge for genetic evaluations systems such as BREEDPLAN is that a complete cow inventory system has to be kept.

As important, is the fact that the bull carries as many positive genes for fertility as does the cow. If a commercial producer buys a bull without fertility EBV's, no genetic progress for fertility will be made in that herd. A large education program is required in Namibia to record fertility properly.

Commercial producers should purchase bulls from Stud clients whom have their financial interest at heart. The practice of simply looking at a bull before a sale and paying top dollars belongs in the dark ages. Engage with producers whom are more interested in making you money than selling you a pretty bull. Your enemy is tradition and all those that preach the old methodologies of selection using only the "eye". They are the ones holding you back. The challenge to the Stud Industry of Namibia is to make a concerted effort to measure traits of economic importance. Start with a proper female inventory and properly record culls. Scan your young heifers and bulls. Finally, take the effort to educate your commercial client of the genetic value of an animal. Namibia is an amazing country with a well-established cattle and sheep industry. Use your resources wisely and continue to educate yourselves of the world's best scientific practices." (Unquote)

17. The Professor's opinion

Prof. Frikkie Nesor from the University of the Free State, a regular contributor to eNEWS, covers a very significant matter in this issue namely "Who is your client?"

It is every farmer's dream to sell a bull to a fellow stud breeder and if the bull is sold for the highest price on the auction or in the breed society - so much better. There is nothing wrong with this dream. Everyone wants the highest price possible. However, stud breeders are so busy chasing this dream that they forget who their real clients are. Yes, the stud breeder will sell genetic material and animals to fellow stud breeders but his main market is usually the commercial farmer. Only 3.7% of all bull calves born in a stud herd are sold to fellow stud breeders while between 20 and 30% are sold to the commercial sector. The stud breeder will sell between 20 – 30 % heifers, of which approximately 40% are sold to fellow breeders.

It is thus clear that the commercial farmer is the main client of the stud breeder. The commercial sector can be divided into a sector with high management skills, an emerging farming sector and a communal sector. Each of these sectors has its own needs, they have, however, one thing in common – they all produce meat to satisfy the consumer's needs. It is therefore important that the stud breeder should decide what part of the commercial sector he considers as his client. It is extremely difficult to cater for all the different sectors, as well as the consumer, which is the most important one of all. His breeding objectives should reflect the needs of both the consumer and his commercial client.

It is also extremely important that the commercial farmer knows the breeding objectives of the stud breeder from whom he obtains his genetic material as he will, inevitably follow in the same direction. Unfortunately many stud breeders don't have any breeding objectives and trust the technical staff of the breeding societies to provide guidance. The result of this could be that the needs of the client are not addressed.

18. Wat alles sê die bul 'se papier'

Is daar vir die kommersiële boer enige waarde in 'n geregistreerde bul of 'n bul' met 'n papier? Vandag meer as ooit tevore.

Die belangrikste taak van 'n telersgenootskap is om stelsels te skep wat sy telers in staat stel om meerderwaardige bulle aan die vleisbedryf te voorsien. Weens die geweldige invloed van die bul op die standaard van 'n kudde en die hele land se beespopulasie, speel die bul 'n besondere belangrike rol wat baie keer deur voorligters en kommersiële kopers misgekyk word.

Generasies van struktureel korrekte diere

By suiwel- en vleis-bees genootskappe met verpligte keuring word diere met fenotipiese foute (*kloue, bene, skede, skrotum en vele meer*) nie geregistreer nie en ontvang nie 'n registrasie sertifikaat nie. Anders gestel, nageslag van ongekeurde of afgekeurde diere kan nooit geregistreer word nie.

Kopers moet dus aandring op die sertifikaat as bewys dat die dier sowel as die voorgeslag aan visuele vereistes gegrond op strukturele korrektheid voldoen het. Wie wil 'n mooi bul koop met korrekte bene maar sy vader het regop hakke gehad en kon beswaarlik dek.

Hoe gaan hy teel?

Wêreldwyd het BLUP-teelwaardes 'n nuwe dimensie in beesboerdery veroorsaak omdat die vordering wat 'n kommersiële boer deur middel van positiewe BLUP-geselekteerde bulle kan maak, geweldig is. Aangesien bulle deur middel van teelwaardes oor jare, streke en kuddes vergelykbaar is, kan die beesboer sorg dat sy nuwe bul geneties beter is as die vorige een en so word sy koeikudde gedurig verbeter.

Wat het dit met 'die bul se papier' te doen. Hierdie BLUP teelwaardes kan alleenlik deur middel van stamboom- en prestasie aantekening verkry word en word dan op die sertifikaat en veilings katalogus gedruk. Dit stel die koper in staat om teelwaardes (dit wat hy gaan teel) tussen bulle te vergelyk. Daar is ongelukkig ook geregistreerde bulle sonder

teelwaardes maar wie wil nou geld spandeer aan 'n onvoorspelbare bul sonder enige teelwaardes. In Europa bepaal die wet dat bulle met geen of swak teelwaardes geslag moet word.

Die "papier" is dus nie net 'n sertifikaat van afstamming nie maar 'n papier:

- wat waarborg dat die bul en sy voorgeslag aan strukturele korrektheid vereistes voldoen het en
- wat deur middel van BLUP teelwaardes uitspel waartoe die bul geneties in staat is.

19. American Brahman announce a more accurate tenderness EBV

The American Brahman Breeders Association (ABBA) have compiled the actual field data from their carcass evaluation program with DNA information which BREEDPLAN then uses together with ultrasound scanning info for what according to ABBA is the most accurate genomic-enhanced EPD for tenderness yet.

ABBA claims that this new genomic-enhanced expected progeny difference (GE-EPD) for tenderness shows up to a 10 percent increase in accuracy for tenderness when compared with the previous tenderness EPD. ABBA CEO: "Since 2003, we utilized a general genetic carcass evaluation test for six different traits, one of those being tenderness. Now, working with Pfizer Animal Health and our breeders, this information increases the accuracy for tenderness on many young sires and ABBA members can utilize these new GE-EPDs when making breeding decisions to help improve tenderness in young breeding stock and increase the marketability of the Brahman breed.

From another report I gather that traits measured by ultrasound scanning (Eye Muscle Area, Rib Fat depth, Rump Fat depth) were found to be good estimates (highly correlated) of the actual carcass measures but not Intramuscular Fat. In fact, the ABBA recommends members who are scanning their cattle for carcass traits not to scan for IMF%. ABBA continues to investigate potential research opportunities to determine why scanning IMF% is not correlating with the actual carcass IMF measures.

Sources: ABBA, Pfizer Animal Genetics and Drovers Cattle Network

20. Die akkuraatheid is 'n risiko maatstaf van hoe die dier gaan teel.

Die akkuraatheid of betroubaarheid van 'n teelwaarde (TW) vir 'n eienskap soos byvoorbeeld speengewig word deur 'n aantal faktore bepaal. Ook wenke aan telers hoe om hulle akkuraatheid te verhoog.

TWs met 'n baie lae akkuraatheid (hang af van ras en eienskap) word nie gepubliseer nie en TWs met 'n lae gepubliseerde akkuraatheid kan nogal baie verander met die toevoeging van meer inligting. Hou altyd in gedagte dat 'n TW 'n gelyke kans het om op- of afwaarts te verander soos wat meer inligting bykom. Hierdie jaarlikse verandering is veral met die aankoop of seleksie van bulle frustrerend maar die positiewe sy daarvan is *"Regardless of the accuracy, EBVs are more accurate than any other currently available method of estimating an animal's genetic worth" (Breedplan International).*

Die berekening van akkuraatheid is kompleks en hang van 'n aantal faktore af :

- (i) Die hoeveelheid prestasietoets inligting wat bekend is van van die dier en familie; hoe meer hoe beter. Daar is 'n wesenlike toename wanneer **nageslag** rekords beskikbaar word. Bv 'n bul met
 - ... net sy eie 400 dae gewig = 55% akkuraatheid;
 - ... sy eie en ouers se gewigte = 60%
 - ... hy het geen gewig maar 10 van sy kalwers het = 67%.
 - ... eie gewig en 10 kalwers geweeg = 74%
 - ... eie en 55 kalwers = 95%
- (ii) Hou in gedagte dat TWs van vader/moeder ook verander wanneer meer inligting/gewigte van die nageslag bygereken word.
- (iii) Die erfbaarheid van die eienskap, hoe hoër hoe beter. Bv. met rekords van dier en ouers by 'n erfbaarheid van 0.3 (speengewig) is die akkuraatheid 60% en by 'n erfbaarheid van 0.1 (melk) is die akkuraatheid 36%.

- (iv) Die genetiese verband met ander gemete eienskappe. As jy 200-, 400- en 600 dae gewigte neem sal jou akkuraathede heelwat hoër wees vergeleke met net die 200 dae gewig.
- (v) Weeg-groep grootte. Toename in akkuraatheid soos weeg groep vergroot : Groep van 1 = 0%, groep van 2 = 42% en groep van 10 = 53%

Wat moet die teler doen om akkuraathede te verhoog

- Weeg alle diere op die plaas insluitende uitskot diere.
- Hou weeg groepe so groot as moontlik deur minder gereeld meer diere te weeg.
- Kyk dat daar ten minste twee vaders in 'n vergelykbare weeg groep is.
- Weeg/meet soveel as moontlik eienskappe maar **ten minste**: (i) weeg rondom 200 en 400 dae, (ii) weeg moeders as kalf se 200 dae geweeg word en (iii) meet skrotum omvang en weeg bulle tussen 18 en 23 maande.

Wat van jong veilings bulle (dus laer akkuraatheid).

'n Algemene reël is dat diere op grond van EBVs vergelyk moet word, ongeag akkuraatheid, maar wanneer 'n bul vir 'n **spesifieke doel** uitgesoek word (*byvoorbeeld hoog in melk*) kies een met beide hoë teelwaarde en akkuraatheid.

Dit is egter by 'n jonger groep veilings bulle (*laer akkuraatheid*) baie keer nie moontlik nie en daarom moet voorkeur verleen word aan die bul met die beste teelwaarde (*ten minste top 10-20% van ras se persentiel tabel – kry dit gerus van jou genootskap*). As die teelwaarde dan volgende jaar verswak, is die kans gering dat dit na die swakte 1/3 van die ras sal daal.

'n Jong bul se akkuraatheid word op sy eie en sy familie se informasie gebaseer. Afhangende van die getal verwante wat getoets is, kan sulke bulle se akkuraatheid van 40% to 75% varieer. Kopers sal dus baat om jong bulle te koop van telers wat onselektief, deeglik en baie diere oor jare getoets het omdat die bulle hoër akkuraathede sal hê.

Breedplan se akkuraatheid interpretasie

< 50%	Voorlopig en kan aansienlik verander as meer data bykom maar nogtans baie noukeuriger as die rou gewig of ouderwetse indekse.
50 – 74%	Gemiddeld en normaalweg gebaseer op dier se eie en ouers se gegewens.
75 – 90%	Medium hoog en kan al nageslag informasie insluit. Sal nie baie verander nie.
>95%	Baie hoog en betroubare beraming van dier se werklike teelwaarde (“wat jy sien, sal jy kry”)

Minimum akkuraatheid vereistes vir publikasie van EBVs

- Verskil tussen eienskappe;
- Verskil tussen LRF rasse;
- Hang af of die dier (of nageslag) geweeg/gemeet is al dan nie – sonder gewig is die afsny akkuraatheid hoër

21. Apple, Exxon Mobil, Walmart, Holstein and Aberdeen Angus have something in common. They are all world leaders. Lets look what makes Angus the number one beef breed society in the world.

Angus is the largest beef breed society in prominent beef producing countries like USA, Australia, Canada, Ireland, Argentina, Uruguay and New Zealand. In all of these countries they have more than 40% of the beef breed registrations. Why this dominance? They discovered years ago a niche market at the end of the beef producing chain which is known as Angus Beef, Certified Angus Beef, McAngus and others. Today Angus is synonymous with beef of the highest quality because the society's concentrated more on performance recording of carcasses, ultrasound scanning and lately DNA testing than all other breeds.

What do they do in the US to stay No 1.

The biggest beef breed society worldwide is the US Angus society. Their annual income/expenditure account is R300 mil and they sit with R150 mil reserves in the bank. However their biggest asset is the industry's largest and most comprehensive genetic database consisting of 17 mil pedigrees with associated performance data. Nearly 30,000 active breeders register 295,000 animals per year. In relation to that, in SA we have a little more than 3000 registered beef breeders of 34 breeds. Another interesting point for us with very little embryo transfer registrations is that they register 30,300 ET calves per year accounting for 10% of all registrations. I believe that the low number of registrations per breeder is because they do all their culling before they register animals at a much later stage than we.

Some priorities of the US association.

- Make comprehensive genetic selection tools (EBVs) available to members and their clients.
- Utilization and further development of modern genetic technology.
- Expand communication to members and offer assistance to commercial users of Angus bulls.
- Increase marketing assistance to Angus breeders.
- Widespread youth involvement through an innovative education and youth development program.

Another interesting one is their marketing and support approach includes the breed **and** its crosses. I found no reference in their policy document of showing.

Here are some priority member services for the **future** listed by their members in a recent survey: (i) Continue to enhance Certified Angus Beef to further drive registrations; (ii) more genomic enhanced EBVs; (iii) increase focus on small-scale breeders; (iv) marketing of members cattle, breed and product to customers and (v) lower-cost services.

Performance

The in-house genetic evaluations are on a **weekly** basis and their website is updated every Friday with new information which is freely available to everybody in the world. The performance section received more than ¾ mil birth-, weaning- and yearling-weights. As mentioned already they are world leaders in carcass traits and now have 1.4 million ultrasound records plus 95,000 carcass records gathered at abattoirs. All these are used to produce genomic-enhanced EBVs.

Like in the past the Angus society ensures that they will remain a leader by spending huge amounts on Angus research and development:

- R2.9 mil in feed efficiency research on Angus females;
- R2.5 mil to conduct genetic evaluation methodology and implementation and new trait development;
- R400,000 to address marbling and early cellular differentiation relative to improving insufficient marbling.

With that approach they will remain number 1.

22. Stoet Holstein staan uit.

Van die verskille tussen geregistreerde en graad Holsteins in Suid-Afrika word hier aangespreek.

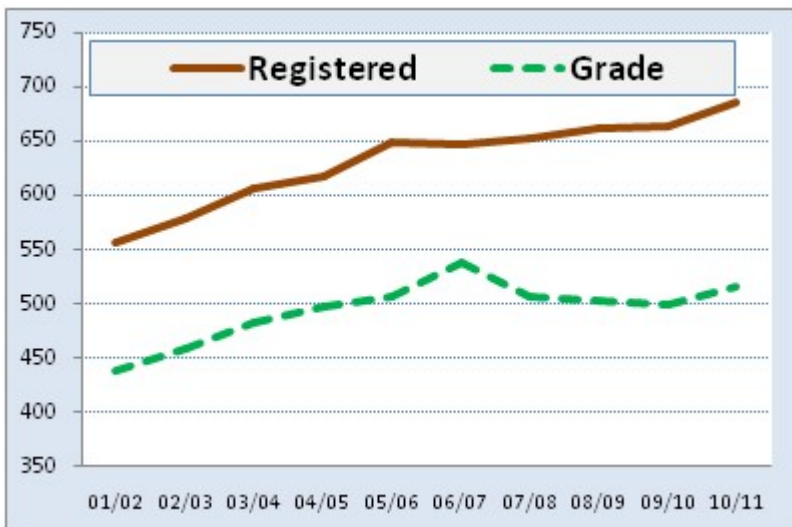
Die grootste verskil is seker dat BLUP teelwaardes, wêreldwyd die beste beraming van hoe die melkbul of koei gaan teel, alleenlik vir geregistreerde diere beskikbaar is omdat die wetenskaplike beginsel van BLUP op prestasie meting en volledige stambome berus.

Die ander verskil is dat geregistreerde koeie meer produseer. Die L.N.R. se jongste produksie syfers per koei is as volg:

	Graad koeie	Registreer	Registreer
Kg melk	7142	9830	+ 38%
Kg vet	280	369	+ 32%
Kg proteïen	235	316	+ 34%

Die verbetering in melkvet+proteïen oor tien jaar was 23% vir geregistreerde en 17% vir graad Holsteins. Die beste bewys dat stoetteling werk! Hierdie 10-jaar tendens word hieronder grafies voorgestel.

Wat is die verskil in geldwaarde? Mnr. Herman Duvenhage van SA Holstein: " Die verskil in melk produksie tussen graad en registreerd is 2688 kg teen 'n melk prys van R 3.50 beloop dit R9408 per koeie per laktasie van 300 dae wat 'n wesenlike verskil is."



23. Is this bull calf truly polled (PP) or not.

Will be great to determine this at an early age and not wait until he has progeny to establish his state of polledness.

The Australians have developed a poll gene marker test that eliminates much of the guesswork in determining the polled state of a polled bull. Breeders know how disappointing it is when you use a polled bull, sired by a polled bull and out of a polled dam, and he throws you a percentage of horned calves.

Now this test can identify the so called PP-bulls. By using PP bulls in a herd with horned (HH), heterozygous polled (PH) and homozygous polled (PP) females, all progeny will be polled (PP and PH). The test requires hair samples and horn status of the animal to be tested, and costs around R400 per animal in Australia.

The famous Australian Beef CRC who developed the test claims that on average, 89% of tests in **polled** Brahmans return an informative result. The test is also proving informative (72-74%) in Charolais, Droughtmaster, Hereford, Santa Gertrudis and Tropical Composite breeds. They maintain that transitioning to a polled herd may take 30 years by visual selection but simulation studies suggest the Australian Poll Gene Marker test may reduce the time to as little as four to eight years.

What an advantage for seller and buyer to offer say a young Brahman bull at a sale with a ¾ plus assurance of PP-status together with his BREEDPLAN EBVs prediction how he will breed.

Regarding availability and costing for LRF breeders contact the LRF associate member UNISTEL at 021-9389213.

Sources: CRC news and The Cattle site

24. Mak genetika i.p.v. makmaak.

Gelukkig is temperament hoogs oorerflik en kan telers d.m.v. BLUP seleksie die wilde lyne of diere redelik vinnig elimineer. Hier 'n paar sukses-verhale.

Navorsing met 'n paar duisend beeste in Australië (Beef Research Centre*) het ontseggelik getoon dat diere met swak temperament

- (i) taai vleis van onaanvaarbare kwaliteit produseer,
- (ii) meer gewig gedurende langafstandvervoer verloor,
- (iii) laer gewigstoename onder voerkraal toestande toon en
- (iv) 'n swakker voeromset het as hulle makker maats.

*Weaber+Creason; Burrow

Van die toets resultate: " Groeitempo senuagtige diere van dieselfde ras 1.04 kg/dag vergeleke met mak maats in dieselfde voerkraal 1.46 kg/day oor 78 dae. Geen mak dier behandel en 42% van die temperamentvolle diere was in een of ander stadium in die hospitaal kamp. Temperamentvolle diere het gedurende vervoer/transit 5% meer gewig verloor. Gelukkig is temperament 'n oorerflik eienskap wat verbeter kan word deur (i) ALLE kalwers op die plaas te punt, (ii) die besonderhede vir 'n BLUP analise aan die genootskap te stuur, (iii) 'n BLUP analise te doen en (iv) op grond van teelwaardes te selekteer. Temperament teelwaardes werk net soos ander teelwaardes en meet die **genetiese** komponent m.a.w. dit wat in die familie loop en aan die nageslag oorgedra word. Om 'n wilde dier mak te maak sal nie die genetika verander nie en weens die goeie oorerflikheid is die kans baie goed dat baie van die 'mak bul' se nageslag ook temperament probleme sal hê.

Dis maklik meetbaar

Daar is 'n (i) Kraaltoets, (ii) Drukgangtoets en (iii) die objektiewe Vlughtyd (Flight-time) toets.⁽¹⁾ 'n Kombinasie van (i) en (ii) werk nogal goed en telers moet hulle genootskap vir tegniese advies en die 5-punt beskrywende BREEDPLAN punteskalaal raadpleeg. Van allergrootste belang is dat ALLE diere, insluitende die wat vir temperament uitgeskot gaan word, gepunt word. Punt van 60 tot 400 dae ouderdom verkieslik voor speen om speen-stres te vermy en omdat alle kalwers dieselfde behandeling ontvang het. Telers punt self demonstrasie 'kursuse' deur die genootskappe se tegniese personeel word aanbeveel.

⁽¹⁾ Erflikheid: Kraaltoets ($h^2 = 0.15 - 0.2$), Drukgangtoets ($h^2 = 0.3 - 0.4$) en Vlughtyd meter (h^2 0.35 vir een meting en 0.4 tot 0.5 vir gemiddelde van 2 metings). Bronne: Beckman et al.; Weaber; Burrow+Corbet; Weaber+Creason en Burrow.

Werk dit?

Hieronder is bewyse dat dit werk as jy temperament korrek meet en dan m.b.v. teelwaardes teen dit selekteer. Sherry berig oor die geweldige verbetering in temperament van verskeie rasse en volgens hom is die getal temperament dier-rekords (2009) VSA Limousin 210,000; VSA Salers 165,000; VSA Angus 95,000; Australië Limousin 49,000 en Australië Angus 22,000.

Genetiese tendens grafieke (genetic trend) soos hieronder word wêreldwyd deur alle rasse gebruik om te monitor of daar op genetiese vlak gevorder word. Die verskillende jare is met mekaar vergelykbaar omdat BREEDPLAN die effek van seisoene, voeding, droogtes, ens. oor jare regstel en net die genetiese deel aandui. Die geweldige verbetering wat met die aantekening en seleksie van temperament behaal kan word, word in die volgende figure aangetoon.

Fig 1: Temperament genetika VSA Limousin. Dr. L Hyde: " *Since we have evaluating this in early 90s , the Limousin's average docility score has increased over nine fold. Even with that success, Limousin breeders continue to collect docility scores and select even more stringently for calm, acceptable behavior.*"

Fig 2: VSA Salers temperament genetika. Dr. S Sherry beklemtoon dat die geweldige verbetering in hierdie ras toegeskryf kan word aan die groot getal telers wat in toesing deelneem, dat temperament maklik meetbaar en hoog oorerflik is m.a.w. jy vorder vinnig as jy teelwaardes gebruik.

Fig 3: Die bestuurder van die Australiese Limousin Genootskap berig dat hulle temperament geweldig verbeter het d.m.v. BREEDPLAN se aantekening stelsel. Hy sê: "An evaluation of the Australian Limousin breeds docility scores has revealed remarkable progress in the breed's docility trait. Most of this change has come since 2000 when Docility EBVs were first released. Availability of docility EBVs in Limousin sale and semen catalogues allows commercial breeders to select bulls that are genetically docile, which will go on to produce quieter, more easily managed calves."

Uit Ierland verneem ons dat die genetiese tendens van hulle Limousin ook geweldig verbeter het. Temperament teelwaardes vir hulle diere is vryelik op die genootskap se webtuiste beskikbaar.

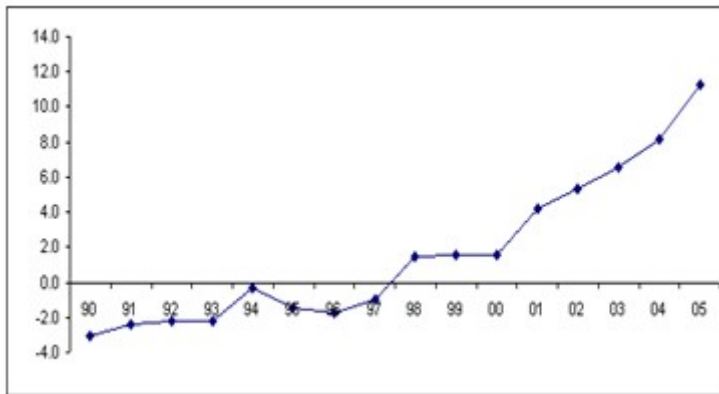
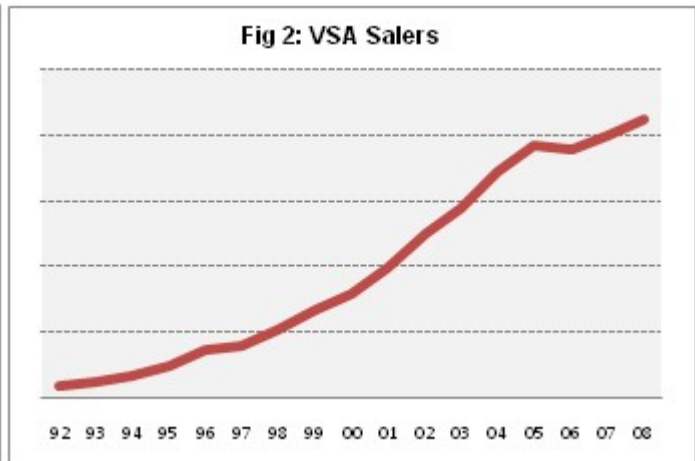
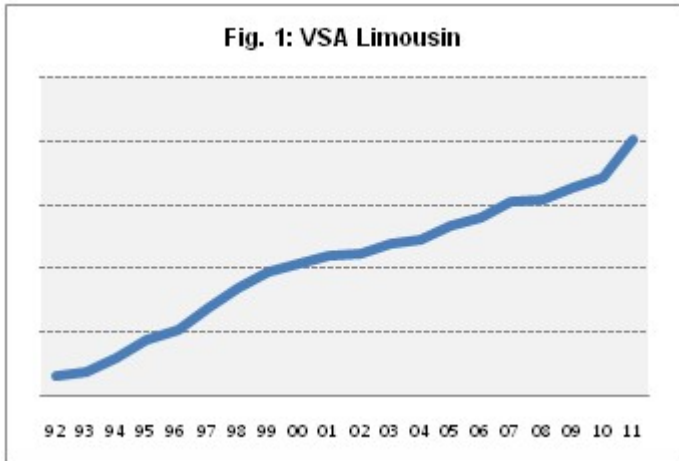


Fig 3: Australië Limousin

25. Genomics

A new genomics venture launched by Beef CRC and MLA of Australia will eventually benefit BREEDPLAN participants. Situation in Southern Africa.

The project invited beef breed societies and breeders to participate in the genotyping of 3000 young animals to predict their breeding value using the new genomic prediction equations. More than 100 breeders representing 11 different breeds applied to be part of the project, which was over-subscribed.

Beef CRC chief executive Dr Heather Burrow said the number of subscribers to the 3000-animal project reflected growing confidence in the industry in the value of genomics to predict commercially important traits. 'With the genomic prediction equations developed from the new 700K SNP chips, we will deliver a world-first product that will identify the genetic qualities for hard-to-measure production and reproduction traits across breeds.'

Dr Hans Graser, Director of the Animal Genetics Breeding Unit, who is coordinating the project, said the project supported the cost of genotyping for breeders as part of the rollout of genomic predictions for Australian beef cattle. "The accuracy of these genomic predictions will vary across breeds and across traits. We are still in the process of calibrating their accuracy for all BREEDPLAN traits."

MLA's Dr Rob Banks, said the key advantage for breeders was to gain a genetic insight into the qualities of young animals that do not have any performance data recorded. "For example breeders presently can't measure days-to-calving on a young bull but if they could use BREEDPLAN genomic data to predict days to calving with improved accuracy, that would really help in the decision-making process for selecting the top animals."

The accuracy of the new blended genomic breeding values, which include hard-to-measure traits like carcass and meat quality, net feed intake and male and female reproductive performance in tropical cattle, were announced by Beef CRC chief scientist Professor Mike Goddard at the recent Beef Australia 2012 International Beef Cattle Genetics Conference which was attended by a few South Africans.

Southern Africa

The primary benefit of genomic tools is to improve evaluation of potential breeding value of young individuals and traits difficult to measure or that are manifested later in life. EBVs of old, highly used sires will not change much with genomic information. Genomic techniques are most useful when incorporated into breed EBVs to increase accuracy. (Dr D Garrick)

Many overseas breeds have already produced so-called genomic-enhanced EBVs and BREEDPLAN is one of the leaders in this field. Genomic tests are very expensive and it was initially thought that Breeds in Southern Africa would be able to use internationally validated results. It has now been shown that breeds have to do their own testing in combination with international results because research has shown that genomic prediction is most effective in the population from which it is derived. Predictions from one breed may be essentially useless and misleading in predicting breeding value for individuals in another breed (Garrick).

We can only go on board when effective levels of genomic data are accumulated within the breed. The LRF CEO Dr M Bradfield reports that a number of initiatives have been taken in this regard. "The LRF is now part of a consortium that includes the whole industry where government money is being sought for genomic testing. Breeds, through their breed improvement committees are also identifying bulls of high accuracy and requesting that genomic data is collected for these animals. The primary benefit of genomic tools is to improve evaluation of potential breeding value of young individuals and traits difficult to measure or that are manifested later in life. EBVs of old, highly used sires will not change much with genomic information. Genomic techniques are most useful when incorporated into breed EBVs to increase accuracy."

26. Waarom 'n goeie bul swakker maak

Lees hoe 'n +14 teelwaarde bul deur 'n teler se toedoen 'n +8 word en die kettingreaksie wat dit tot gevolg het.

Selektiewe of uitsoek toetsing is ongelukkig 'n algemene verskynsel in Suider Afrika. Dis jammer want deur slegs die beter (*swaarder*) diere te weeg maak jy hulle 'middelmatig' i.p.v. 'goed' omdat hulle ligter uitkos maats se gewigte nie aan die kantoor gestuur is nie. Hier in 'n voorbeeld van hoe 'n teler wat selektief weeg homself verneuk.

Aannames: Almal dieselfde geslag, moeder status en behandeling. Min of meer ewe oud. Oorerflikheid 30%. Genetiese invloed van verwante en korrelasies met ander gewigte nie in ag geneem nie.

Bul nommer	Bulle se gewigte	Stuur alle gewigte aan die kantoor	Stuur net die gewigte van die swaarder bulle wat nie by speen uitgeskot is nie.
		Teelwaardes	Teelwaardes verswak met 6
A	275	14	8
B	265	11	5
C	260	9	3
D	250	8	2
E	235	2	-5

F	210	-6	-12
G	195	-11	Nie ingedien nie
H	190	-12	Nie ingedien nie
I	185	-14	Nie ingedien nie

Bul A se goeie teelwaarde van 14 word na 8 verswak, oftewel selektiewe weging veroorsaak dat alle bulle se teelwaardes met 6 verlaag. Nog erger, veral as dit gereëld gebeur, is die oorberaming van bulle wat nie geweeg is nie se vaders se prestasie.

27. Can you improve fertility by selecting for it

Mr T Schatz, an Australian Research Officer says 'yes' and provides proof of how they improved a large Dpt. Agriculture Brahman herd in the stressful Northern Australian environment.

"We have proven, beyond many people's expectations, that selection pressure on both bulls and cows can influence fertility rates within herd" according to *Schatz*. They more than doubled yearling pregnancy rates through the following selection programme:

- Cows are culled from the herd if they don't raise a calf to weaning each year. Raising a calf to weaning age each year proves maternal traits of calving ease, mothering ability and milk production while maintaining good body condition ready for re-conception each year.
- Bulls are selected on superior BREEDPLAN EBV's for scrotal size, Days-to-Calving and 400-day weight. Bulls must also have a positive 'semen test'.

Schatz maintains that selecting for fertility favoured animals with smaller maturesize. "Commercial producers may find it difficult to do the level of herd recording we do to track the fertility of their heifers and cows, but they can easily use fertility EBVs like scrotal size and days-to-calving to help choose the bulls they use and this alone could make a big difference to herd fertility rates."

Breeders in Southern Africa who believe that reproduction is more important than weight or size should put more emphasis in measuring scrotal size and days-to-calving than weights. Any genetic change in a herd is best illustrated by the herds genetic trend over years. *Schatz* supplied the following figures as prove of their dramatic improvement in fertility traits.

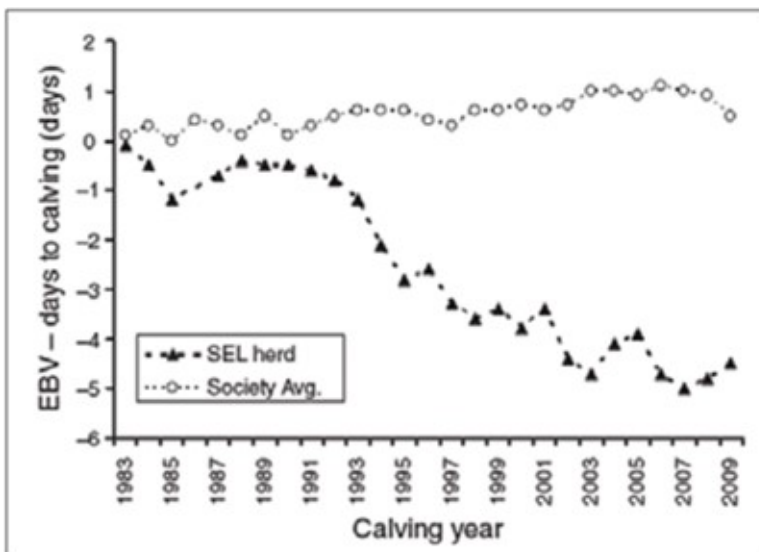


Figure 1: Improvement in reproduction (days-to-calving EBV) of the SElected herd compared to breed average, prior to the selection and since 1994 when selection pressure was applied

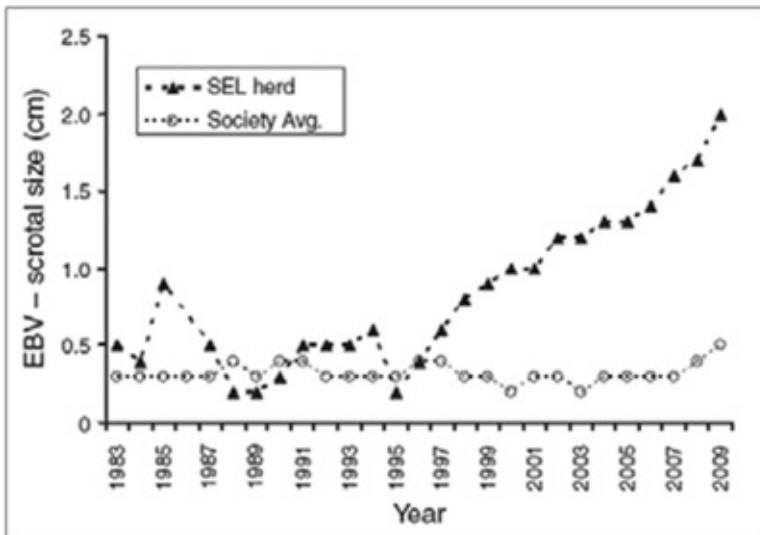


Figure 2: Similarly, the effect on selection for scrotal size EBV (fertility) in the SElected herd compared to breed average, prior to the selection, and since 1994 when selection pressure was applied.

Source: Beef Central, Australia

28. Dekseisoene 'n wenner

Die teler, sy koeie en prestasietoetsing baat by teelseisoen(e).

Veekunde Adviseur, Danie Bosman, sê dat kuddes wat dit toepas se kalf persentasie tot 13% hoër was as kuddes sonder teelseisoene. Volgens hom is enkel seisoene die voordeligste en kan twee dekseisoene nuttig wees indien verse op 18 maande ouderdom gepaar word.

Hier 'n samevatting van menings deur kenners *J Kluys, D Nichol, R Rusch, P Zensi en J Freeman*). Hulle ag die volgende as die belangrikste voordele van teelseisoene (ook kalfseisoen):

- Vereenvoudig bestuur (veeartsenykundige behandeling, dragtigheid ondersoek, byvoeding)
- Verhoog konsepsie en verbeter dus die TKP van die kudde (paring tydens veld op sy beste, koeie in goeie kondisie).
- Vergemaklik bulversorging en bestuur – bulle kry rusperiode.
- Verminder stoet-administrasie deur een of maksimaal twee keer indiening van geboorte kennisgewings.
- Vergemaklik weeg program aansienlik en groter weeg groepe wat betroubaarheid van BLUP teelwaardes verhoog.
- Kan vrugbaarheid teelwaarde dae-tot-kalwing aanteken.

Watter seisoen kies ek? Dekking wanneer koeie in piek kondisie is.

Lengte van teelseisoen? Hoe korter hoe beter. Veral 'n winter dekseisoen moet kort wees (nodige voeding kan ontbreek). Om 'n ideale TKP van 365 dae te handhaaf, moet die koeie binne maksimaal drie maande na kalwing beset raak (365 dae – 280 dae dragtig = 85 dae). Die teelseisoen moet dus verkieslik nie langer as drie maande wees nie.

Verse: Onder ekstensiewe veldtoestande behoort verse drie maande voor die teelseisoen reeds by die bul te kom (langer herstel tydperk na eerste kalf). Party glo daaraan om 'n maksimum getal verse te dek en te selekteer vir (i) dragtigheid (ondersoek), (ii) eerste kalwing (gemak van kalwing) en (iii) weer vinnig dragtig word. Die bestuursprogram vereis 'n kortkalfseisoen.

Een of twee dekseisoene?

Een seisoen se voordele: Maklike bestuur en kontrole van geslagsiektes.

Nadele: Koeie nie dragtig slaan 'n jaar oor (indien nie verkoop) en hoër risiko indien swak seisoen.

Twee seisoene se voordele: Hoër kalf persentasie (koei wat oorslaan het kans om gouer weer dragtig te word), benodig minder bulle en 1 ½ jaar oue verse kan gepaar word.

Nadele: Moeiliker bestuur, geslagsiektes moeiliker beheerbaar en meer aanvullende lekke.

29. Calving problems cause all sorts of problems

Calving difficulty (dystocia) can increase calf losses, cow mortality, veterinary and labor costs, as well as delay return to estrus, and lower conception rates. Now they discovered another problem caused by dystocia.

My library is full of documents by scientists from all over the world proving that birth weight is the major factor causing calving problems. Studies at the US Meat Animal Research Center showed that calf mortality increased by a 0.35 percent per pound (0.45kg) increase in birth weight.

Prof. J Neel reports from the USA that losses due to difficult births go beyond a dead calf or lower conception rate. "Calves with difficult births are apt to have reduced immunity compared to those born without difficulty because they receive inadequate colostrum from their dams. Calves enduring difficult births are also those that have a challenge rising and searching for the dam's udder. These calves are also less efficient in absorbing the immunoglobulin from the colostrum."

"In addition, these calves are more susceptible to stress of birth and will experience greater respiratory and digestive problems and perform at a reduced rate as future brood cows or as steers in the feedlot and carcass value. These are real losses but are not usually noticed, whereas death is very easily seen."

BREEDPLAN calving ease EBVs

An EBV is a much better indicator of birth weight than just the birth weight because the EBV reflects the genetic merit without the influence of an environment (for example feeding). Furthermore it can be utilized to compare bulls across herds and years which is not possible at all with a raw birth weight.

BREEDPLAN produces the following calving ease EBVs:

1. Birth weight: A bull with an EBV of +2 is expected to produce lighter calves than a +6 bull and has a lower risk of difficult births.
2. Calving ease direct: These EBVs are estimates of genetic differences in the ability of a sire's calves to be born unassisted from two year old heifers and they are reported as differences in the percentage of unassisted calvings. For example, a bull with an EBV of +7.0% would be expected, on average, to produce 3% fewer difficult calvings from two year old heifers than a bull with an EBV of +1.0%. ($7-1=6 \times 0.5=3\%$)
3. Calving ease daughters EBVs are estimates of genetic differences in the ability of a sire's two year old daughters to calve without assistance. The EBVs are also reported as differences in the percentage of unassisted calvings. For example, a bull with an EBV of +4% would be expected to on average produce two year old daughters that have 3% less calving problems than the daughters of a bull with an EBV of -2%

30. Tyd is geld

Waarom waardevolle tyd spandeer om geboortes, gewigte en dies meer op ouderwetse vorms in te vul terwyl jy dit blitsig d.m.v. jou rekenaar aan jou genootskap kan stuur.

Kry die HerdMASTER komper program by om al jou genootskap en BREEDPLAN se informasie te voorsien.

- Hanteer jou kudde bestuur op alle vlakke;
- Dit toon die prestasie van jou goed en swak presterende diere.
- Produseer 'n kraallys volgens jou vereistes.
- Plus 59 ander verslae.
- Integreer met jou skaal.
- Voorsien 'elektroniese vorms' vir indiening van al jou data aan die genootskap.

Die bestuurder van HerdMASTER in Afrika het tydens die onlangse Nampo-oesdag gesê: "HerdMASTER remains a world leader and can be found in most of the world's leading beef and sheep countries. Our commitment to our clients is to

ensure that HerdMASTER continues to remain the world's leading herd management program. WE already have a great cattle program and now have created what is arguably the very best Smallstock program in Southern Africa."

Vooruitstrewende telers baat baie deur die 'Dae tot Kalwing' gegewens en alle ander metings d.m.v. HerdMASTER aan die genootskap te stuur.

Vir interessante inligting oor die program: www.breedplan.co.za/Herdmaster.htm

Besoek hulle in Pretoria of woon 'n kursus by:

24 Julie, Schweizer- Reneke; 7 September, Irene-Pretoria; 1 Oktober (beginners), 2 of 3 Oktober, Windhoek.

31. They are getting larger and larger

Some interesting remarks on cow-size by the well known Prof S Hammack (Texas A&M Univ.) at the 2012 Beef Improvement Federation Symposium.

A short review of an interesting presentation:

- Repeated warnings have been uttered for more than 40 years about the need to place constraints on weaning weight and yearling weight but the industry continued to make cattle bigger.
- The push continued for increased rate of gain and other improvements but none of the methods used to measure the improvements considered the cost.
- Many animal scientists throughout the years warned that a focus on growth traits could be detrimental to the cow herd. They urged the industry to remember that the average cow herd must operate on a fixed resource base. Cows became bigger, they produced more milk and raised bigger calves, but fewer of those bigger cows could be maintained on that fixed resource base.
- There is no inherent advantage in efficiency, from increasing the size of cattle.
- In his closing comments, Hammack recommended less emphasis on individual performance and greater attention to herd output, with consideration of the cost.

Also read "Verandering in koei-grootte" elsewhere.

32. Verandering in koei-grootte

Vandag se koeie is groter/swaarder met hoër energie behoeftes en die klein rasse van die verlede het vandag die grootste koeie.

Die wêreldwye gebruik van EBVs vir groei het groter koeie tot gevolg weens die hoë korrelasie tussen die 200, 400 en 600 dae teelwaardes waarvoor geselekteer word met koeigewig waarvoor meestal nie geselekteer word nie. Genetiese tendense van rasse (waar omgewing invloed 'uitgehaal' is) in Suider-Afrika en elders toon dit duidelik.

Verder is dit interessant dat die Britse rasse wat in die verlede in Noord-Amerika as te klein geag was vandag die swaarste koeie het. Jare gelede het hulle Kontinentale rasse soos Limousin en Simmentaler ingevoer met die doel om hulle klein koeie en lae gewigstoename te vergroot/verbeter. Die gemiddelde koei-grootte in die VSA, wat gemeet word op grond van die alombekende "USDA Germplasm Evaluation Program", word in die tabel aangetoon (Bron: Olson).

1. Hereford	639kg
2. Angus	634
3. Simmental	630
4. Limousin	626
5. Charolais	617

Bullock meld dat die kombinasie van groter volwasse grootte en verhoogde produksie (groei en melk) ook die energiebehoefte van die nasionale koei-kudde verhoog het. Volgens *Olson* verloop die grootte:energie behoeftes nie op

'n reguit skaal nie. Die 1400 lb. koei (636kg) se energie verbruik is 11% hoër as die van 'n 1200 (545kg) maar die 1200 lb. koei is 17% swaarder. Hoe belangrik is dit? Volgens *Ritchie* is 50% van die totale energie wat vir vleisbees-produksie gebruik word vir die instandhouding van die koei-kudde.

Lees ook "They are getting larger and larger" in hierdie uitgawe

Suid Afrika

Ons het nie 'n 'germplasm program' nie en moet staatmaak op syfers van die LNR se prestasie-toetsskema wat weens die omgewing en bestuur verskille van die deelnemende rasse nie eintlik vergelykbaar is nie maar almal doen dit omdat daar niks beter in plek is nie. Die verhouding in koeigewig (by geboorte) tussen bovermelde rasse en dieselfde gewigte vir 20 jaar gelede word in die volgende tabel vertoon.

	20 jaar gelede	Vandag
1. Charolais	590	630 (+7%)
2. Limousin	Te min data	580
3. Hereford	465	550 (+18%)
4. Simmentaler	500	530 (+6%)
5. Angus	470	525 (+12%)

33. What you see and what you cannot see

Can you look through the bull's fat? Abridged from an article by Australian bull buying expert Mr Bob Freer.

- Bull buying decisions are generally based on differences that are observed, or may be measured (weighing), between the bulls being compared.
- Better fed bulls will generally look better than lesser fed bulls – but they may not breed as well.
- Differences in feeding are not passed onto the progeny, only differences in the animal's genetics are.
- If you are to buy bulls to fit your herds breeding objective, you need to remove the influence of nongenetic differences from what you see, otherwise your judgement may be biased towards bulls that are better fed, rather than better bred.
- Removing non-genetic influences can be done by BREEDPLAN, a genetic evaluation program that, by adjusting for known non-genetic influences, allows you to directly compare bulls on the basis of their genetic merit for 17 commercially important traits regardless of differences in the background environment or age of the bulls being compared.
- The difference in performance between a bull and the breed benchmark is given as an Estimated Breeding Value (EBV) and are reported in units of measurement, e.g. kg of weight, mm of fat depth. EBVs can be above (+) or below (-) the breed benchmark.
- EBVs are calculated from performance information on the animal, its parents, progeny and its close relatives within the breed. This information is adjusted for many different aspects.
- You cannot compare the EBVs between breeds



34. Muscling in females

As you increase muscle in females to effect an increased muscling in sale progeny, there are economic advantages, however, what happens to other traits.

There has been an apparent negative relationship between increased muscle in females and other productivity traits such as calving ease, fertility and cow survival in hard times. This is not necessarily true according to research conducted in Australia for 20 years already. Research leader B McKiernan released some of the findings obtained from the three herds of Angus viz high-muscle, low-muscled and myostatin carrier group (which results in a mild form of double muscling):

- The weight and eye muscle area measures taken of the progeny at weaning and yearling were consistently higher for those selected for muscling with no detrimental effect on growth rates.
- Rib and rump fat figures indicated the progeny of females carrying the myostatin gene were leaner.
- The more muscled females producing shorter calves (height measurements). "Producers have long believed that when they select taller animals they are getting higher growth rates, however, this shows they may also be inadvertently selecting for lower muscle," Mr McKiernan said.
- Commercial boning figures showed the progeny from high-muscled females dress heavier by 1.5% over the low-muscled group and then there was a further 1% difference between the myostatin group and the high-muscled group.
- Data on reproductive performance showed little calving difficulty across the herds, with calving rates ranging from 86% in the low-muscled group to 88% in the high-muscled group.
- Birthweights were the same and birth scores, which take into account the level of intervention required at calving, were on par.

"More muscle equals more money, smaller frame, less fat, same weight gain and overall, greater efficiency," Mr McKiernan said.

Source The Land, and CRC news, Australia.

35. Vleisbeeskenners se voorspelling 1 ½ dekades gelede.

Die verlede is geskiedenis maar geskiedenis kan interessant wees soos hierdie voorspelling oor die stoetbedryf deur 'n kenner in 1996.

By 'n skoonmaak aksie loop ek 'n toespraak raak wat Dr Fanie van Rensburg in 1996 by 'n Bonsmara simposium gelewer het. Hy was 'n leiersfiguur by instansies soos onder andere die Vleisraad, Abakor, Vleissentraal, SA Stamboek en SA Brahman. Hy het 'n groot aandeel gehad in die totstandkoming van 'n Veeverbetering Wet waardeur onder andere SA Stamboek se destydse **alleenreg** vir registrasie van diere na genootskappe uitgebrei is – die beste gebeurtenis ooit vir die bedryf. Oor laasgenoemde het hy by die simposium die volgende gesê: "Ons gaan vanjaar nog 'n baie meer gebruikersvriendelike Wet kry wat meer magte aan genootskappe gaan toeken maar ook 'n baie groter verantwoordelikheid op ons genootskappe sal plaas."

Terug na oom Fanie se destydse voorspellings oor toekoms:

1. Hulp en simpatie vir die kommersiële boer sal droewig min wees in dien enige.
2. Ons gaan weinig ondersteuning deur wetgewing of aksies buite onself ontvang.
3. Elke produsent en genootskap sal sy eie databasis moet byhou om sinvolle mark- en telingsbesluite te neem.
4. Beesvleis sal toenemend 'n gesogte voedselbron bly.
5. Stoetteling van kwaliteit-diere sal altyd 'n premie behaal.
6. Rasgenootskappe het 'n wonderlike geleentheid om hulle telers van 'n volledige dienspakket te voorsien.
7. Wetenskaplike meting van stoetdiere sal toenemend 'n voorvereiste vir sukses wees

36. Bull buying

The most important job of the stud and commercial breeder. I glanced through a few beef cattle publications and found the following citations by well known breeders and scientists.

"Only consider reputable breeders that can provide complete performance records. Performance records and pedigrees are only as good as the integrity of the breeder. If performance information is not available, look elsewhere for bulls." (R Silcox)

"The history of the bull's mother and female line are very informative. Does the cow get big teats at calving time? Did she reach puberty at an early age and settle quickly? Has she had a calf every year, and does she calve easily? If the tame show bull's mother is flighty, there's a very good chance his daughters will be too."
(C Jones)

"Any serious breeder will never buy a bull with below average testicle size. Testicle size is highly correlated to daily sperm production and percent normal sperm. The use of bulls with large testicles will in the long run result in higher fertility of the females. Studies have shown that scrotal circumference is a more accurate predictor of age at onset of puberty than either age or weight regardless of breed." (A Barth).

"A mistake some stockmen make in using EBV's is selecting for extremes, thinking one bull is better than another because his EBV for that trait is higher (or lower). It all depends on what you are selecting for in your particular herd. A bull with a below average EBV value for milking ability, for instance, is only "bad" if your herd needs increased milking ability. If you already have heavy milking cows or marginal pasture conditions where heavy milking cows may not get enough nutrition to milk well and still keep up their own body condition, a low milk EBV may be what you need in order to continue raising cattle in a profitable manner."
(HS Thomas).

"Buy from a breeder who measures performance with no excuses. Excuses range from, "*I don't have time,*" to "*I know good cattle,*" to "*I like to grow them out rough so they'll be fertile*". Those are excuses. Any breeder who produces stock should be able to put his records where his mouth is – and if he's selling genetics he should be able to prove it. Don't buy a con-job."
(R de Baca)

"Purchasing a bull is just like hiring a new employee. Ever wondered about the bull you've hired? What do you really know about him? If he isn't suited to the job or can't do the job, why did you hire him in the first place? You've hired him to help with calf production, but can he do it? It's much easier not to hire a marginal employee than it is to fire one. So what do we need to do to find out if this bull is the employee we need in our herd?"

37. VSA vleisbees registrasies.

Die 'National Pedigreed Livestock Council (NPLC)' het hulle jongste registrasie syfers vrygestel.

Nie alle ras genootskappe in die VSA is lid van die NPLC nie maar as ek deur die lys hieronder kyk is al 'die grotes' wel lid. Angus is steeds by vere die grootste genootskap. (Bron Prof S Hammack).

1. Angus – 282,911
2. Hereford – 64,907
3. Simmental – 49,000
4. Red Angus – 46,094
5. Gelbvieh – 34,963
6. Brangus – 24,843
7. Limousin – 23,716
8. Beefmaster – 16,000
9. Shorthorn – 14,653
10. Brahman – 9,300

38. What is the bull buyer looking for?

The well known US BEEF magazine analyzed beef bull seller and buyer preferences. Here a brief summary of some of the results which I think are also relevant to Southern Africa.

1. Which are the most important traits for your customers?

Temperament 1st with birth weight EBV, hoof and leg soundness and overall conformation together in 2nd position. At the bottom of the list was colour. Note: Colour shouldn't be an issue because most commercial cattle are black and most continental breed associations register thousands of black Simmentaler, Charolais, Limousin, etc.

2. What services do you as bull seller provide customers?

The three most important services are (i) Free or subsidized trucking, (ii) Assurance beyond the normal breeding guarantee and (iii) Herd visit and consulting.

3. When selecting bulls, what traits are important to you?

Similar to 1 above : Temperament on top followed by 'Feet and leg soundness" with colour at the bottom of the list.

4. Which of the following information do you require to purchase a bull?

Birth weight EBV over 70% followed by Calving Ease, Weaning weight and Milk EBV's between 50 – 60%. Interesting that adjusted Scrotum circumference measurement was rated higher than Yearling EBV. At the bottom with less than 10% is Genomic information, Heifer Pregnancy EBV and Gestation Length EBV.

6. When selecting stud stock suppliers (stud bull sellers), what services are important to you?

Assurance beyond the normal breeding guarantee, outcross genetics, performance data and herd visit/consulting.

39. In a Nutshell

Direct citations or condensed version of statement

The bull buyers dilemma

Buying bulls at sales can be difficult. How do you tell if some stock look better due to feed, or are they really genetically superior? Certainly you can visually check structural aspects, temperament etc., and you may have experience with some studs or sire lines, but it would be good to have a better indicator of how an animal will breed. What growth rates, milking ability, carcass attributes, female fertility and efficiency levels do you expect in the progeny, for example? Buying bulls on the property allows better selection within that herd, but how do you compare with other herds? Only breeding values allow you to compare animals across sexes, years, seasons and even herds.

(Brian Sundstrom)

Wrong grouping , wrong EBV

A contemporary group consists of animals that have been exposed to the same outward environment (management system, pasture, feeding group, etc.). If a group of bull calves were fed extra for show or sale and lumped into the same group as their herd mates, growth EBVs will be: (i) inflated for the show calves, their dams and possibly their sires and (ii) deflated for their herd mates, their dams and possibly their sires. I could expand the cascade of effects beyond the calves and their parents (e.g., sibs, cousins, etc.), but you get the picture – grouping cattle improperly can cause problems.

(Dr W Shafer).

Milk EBV depends on cow herd

The most desirable milk EBV in a sire will vary from breeder to breeder, depending on the herd's current milk level and the ranch's feed resources and the direction the cow herd should be moved genetically. A bull with a low EBV for milk is only "bad" if your herd needs increased milking ability. If you already have heavy milking cows or marginal pasture conditions where heavy milking cows may not get enough nutrition to milk well and still keep up their own body condition, a lower EBV may be just what you need in order to continue raising cattle in a profitable manner.

(Dr C Nelson)

Say thank you to breed societies.

The cornerstone for our success the last 30-40 years has been the collection of quality phenotypic data which has allowed our producers to capitalize on research/technology transfer programs for genetic improvement. This will continue to be important or research into genomic markers may have little if any impact. The old adage "genetic evaluations are only as good as our data" will continue to be true and will be important information as the expansion of genomic data will require large volumes of phenotypic data and will be required to update existing marker effects.

(Dr. D Funk).

And, thank to BLUP EBV's

Genetic evaluations have played a significant role in the improvement of beef cattle since the Sire Summary was published by the American Simmental Association in 1971 and closely followed by every major beef breed in the U.S. The genetic trend tables of breed associations are a testament to our success. Genetic trend tables published by the Meat Animal Research Centre have shown as much as 60 pounds (27kg) in the genetics for yearling weight alone since the early 1970s. Additionally, over this same period of time the combination of genetics, management, nutrition and health has seen average dressed carcass weights for steers increase by 150 pounds (41kg).

(Dr. R Williams).

Scrotal size

While the final analysis is still to be completed, research results from an Australian CRC for Beef project are indicating that there is a favourable genetic relationship between scrotal size, age of puberty and semen quality traits in tropical beef cattle breeds (e.g. Brahmans and Tropical Composites). They assessed growth, scrotal circumference, hormonal and semen traits in 2200 bulls from weaning through to two years of age.

(Corbet et al.)

That's no bull

It's not about what the bull looks like – you can see that. It's about how his progeny will most likely perform, and that's about profit. It's about reading the figures and liking a bull. Some people will put more emphasis on the EBVs and do their homework before they go to a bull sale. Others prefer to visually assess them first, then look at the figures. The information is in catalogues, and online as well which enabled a potential buyer to come up with a shortlist of bulls but they must have numbers to back up their looks.

(Mr C Duff, Australian bull selection expert).

Absolute performance is not predictable... Relative performance is.

Suppose your old herd bull has a yearling weight EBV 20. You buy a new bull with a yearling weight EBV of 30. How much will the new bull boost your calves' yearling weights? The answer.....We cannot predict how much performance will change from one year to the next because of varying environmental conditions (rainfall, temperature, available feedstuffs,

etc). However, we do know this: the calves raised in the same contemporary group sired by your new bull will have the genetics to weigh an average of 5 kg more at 365 days of age as compared to calves sired by the old bull. $(30 - 20 = 10\text{kg} \times \frac{1}{2} \text{ bull's genetics} = 5\text{kg})$

Size reduces fertility in marginal environment

Long-term research conducted in a desert of New Mexico using Brangus cows suggest increased cow size, resulting from emphasis on selection for growth traits, is associated with lower reproductive performance. In that environment bigger, late-maturing cows exhibited reduced pregnancy rates. Highest reproduction was seen in cows somewhat below average in size. Especially in marginal environments, more attention should be paid to selecting females that mature early.

(Dr. M Thomas)

EBVs and EPDs – What's the Difference?

If you wish to import semen from the U.S you should know the difference. North America uses EPDs and the rest EBVs. The BREEDPLAN EBVs we are using is called *Estimated Breeding Values* and is an estimate of an animal's **own genetic value** for a particular trait. The North American EPD is an *Expected Progeny Differences* defined as an animal's **genetic value as a parent** for a particular trait. As the parent contributes 50% of its genes to its progeny, an EPD is theoretically half an EBV (or $0.5 * EBV = EPD$). Nevertheless, the experts will tell you that it is difficult to compare EPDs with EBVs, even if the EPDs of an animal are simply multiplied by 2, due to significant differences in the different analyses.

Who says milk EBVs don't work

Some interesting news from the South Carolina University. They studied the relationship between Milk EPD (refer EBV and EPD above), actual milk production and weaning weight in two groups namely a HIGH milk group averaging +9.4 Milk EPD, and a LOW group averaged -10.7 Milk EPD. Thus, EPD predicted 20.1 pounds difference in weaning weight to be produced by the two groups. Cows were bred to the same sires. The HIGH group produced significantly more milk and weaned calves averaging 52 pounds heavier, about 2 ½ times more than the 20.1 pounds difference predicted by Milk EPD.

Selecting for calving ease EBVs – What else happens.

The U.S. Meat Animal Research Center over many years developed two closed genetic lines that were selected according to EBVs:

The **Select-Line** for (i) reduced heifer calving difficulty score and (ii) average yearling weight EPD and the **Control-Line** selected on (i) average birth and (ii) average yearling weight EPD.

Two and three year old **Select** females produced calves 4.5kg lighter at birth and had improved calving ease. There was less than 1.8kg difference between **select** and **control** in weaning, yearling, and carcass weights. **Select** were slightly fatter and slightly higher marbling, but there was no difference in ribeye area or internal fat.

No 1 cause for calving problems

Numerous studies have been conducted world wide on calf measurement* and calving ease and there is good agreement that shape difference exists among calves at birth. But when relationships with calving ease are determined, **birth weight** is by far the most important factor and essentially all measurements contribute only small and usually insignificant amounts of information.

(Dr B Bellows).

*=Head circumference, front cannon bone length, hip width, chest depth, heart girth, shoulder width, calf height and length.

40. In 'n neutedop lekkerlees formaat Kwoteer of beknopte opsomming van steeling

Waarom weeg.

Hoekom moet ek weeg as ek kan sien dit is n goeie kalf. Hoekom skat as jy dit kan meet. Sou jy tevrede wees jou koöperasie skat dat daar 50kg meel in 'n sak is, pleks van om dit te weeg? Kan 'n persoon werklik die vermoë van bul "raaksien" om vrugbare dogters met genoeg melk te teel? Hoe weet jy wat die genetiese vordering in jou kudde oor die afgelope vyf jaar was as jy nie weeg nie.

(Andries Gouws, Landbouweekblad)

Stoet beeste, so what.

Dr P van Rooyen van SA Stamboek beklemtoon die noodsaaklikheid van van suiwer geteelde bulle vir die voorsiening van beproefde meerderwaardige genetiese materiaal. "Registrasie data is die fondament waarop BLUP oftewel teelwaarde bepaling berus. In diere teelt is die waarde van 'n dier as produseerder van nageslag, dus sy teelwaarde, van oorheersende belang. Daarom word BLUP nie net bereken op grond van 'n dier se ouers, broers en susters nie, maar

ook van sy tantes, ooms, neefs, niggies, halfbroers en susters en ook hulle aangetekende nageslag. Dit gebruik dus inligting van alle verwante diere – ook oor kuddes en landgrense heen. Hoe meer inligting, hoe hoër die akkuraatheid van BLUP en en hoe hoër die voorspellingswaarde."

Nuwe dimensie

Wêreldwyd het BLUP-teelwaardes 'n nuwe dimensie in vleisbeesboerdery veroorsaak aangesien die vordering wat 'n kommersiële boer deur middel van positiewe BLUP-geselekteerde bulle kan maak, geweldig is. Omdat bulle deur middel van teelwaardes oor jare en streke vergelykbaar is, kan die vleisbees-boer sorg dat sy nuwe bul geneties beter is as die vorige een en so word sy koeikudde gedurig verbeter. Terloops, in Europa ag hulle BLUP so belangrik, dat die gebruik van bulle sonder of met swak BLUP- teelwaardes al vir langer as twee dekades wetlik verbied is.

(Outeur)

Suiwelters moet op fiksheid konsentreer

In 2007 het Amerika byvoorbeeld 34% meer melk geproduseer as in 1960. Die diere het ongelooflik gepresteer, maar nie noodwendig beter nie. Probleme wat uit BLUP voortgespruit het, was dat telers geen doelwitte gehad het nie en te veel op produksie en te min op fiksheid (vermoë van diere om onder natuurlike omstandighede te produseer, te reproduseer en te oorleef) gefokus het. Die gemiddelde aantal laktasies het gedaal tot n skamele 2.2 in die geval van Holstein. Telers, beide stoet en kommersieel moet weet waar hulle oor tien, vyftien jaar met hulle kuddes wil wees.

(Prof F Nesor, soos aangehaal deur AgriForum)

Beter bulle

Dit is belangrik dat telers oor kudde-produksie i.p.v. individuele produksie moet begin praat. Deur beter bulle in 'n kommersiële kudde te gebruik kan die speenmassa met 10kg verhoog word, wat sal meebring dat 'n teler wat 900 kalwers uit 'n koei-kudde van 1000 laat speen 'n bykomende skoon wins van R180 000 sal maak.

(Dr. H Dreyer)

Die syfers klop nie

Die data by die Departement van Landbou en by Statistiek SA is foutief. SA het 'n landboustatistiek-taakspan nodig. Al die syfers oor veegetalle, kunsmis verbruik, masjinerie-aankope en belegging in landbou is nie meer as duimsuig nie. Die manne en vroue wat deesdae statistieke saamstel, *copy en paste* somer uit die vorige jare sonder om die bron-data te raadpleeg. Dit word vererger deur die feit dat die Mededingingskommissie verhoed dat bedrywe inligtingsverskaffings werk doen. Die amptelike syfers is dus net raaiwerk.

(Prof. J Kirsten soos aangehaal deur A Groenewald van Landbouweekblad).

Daar sal geproduseer word

Teen 2025 sal SA 'n totale bevolking van 83.4 mil moet voed. Indien Suid-Afrika nie totaal van die buiteland vir sy voedselvoorsiening afhanklik wil wees nie, beteken dit dat die kommersiële landbou oor die volgende 13 jaar 57% meer voedsel sal moet produseer as wat tans die geval is. Weens die regering se landbou en grondhervormingsbeleid lyk dit onwaarskynlik of die kommersiële landbou dit gaan regkry aangesien daar reeds volgens statistieke 'n afname van 17,998 boerdery-eenhede van 1993 tot 2007 was.

(S de Nekkeroud-direkteur Dpt. Landbou soos aangehaal deur C Smith, Volksblad)

Groot of klein koeie

In Namibië boer julle ekstensief, wat 'n beperking op die grootte van julle diere plaas. As jy onder natuurlike toestande vir vrugbaarheid selekteer, beteken dit jou diere kan nooit te groot vir jou omgewing word nie. Jou omgewing skep 'n plafon wat grootte betref. As daar onder kunsmatige toestande geselekteer word, is daar nie 'n plafon of keerpunt vir grootte nie.

(Prof. F Nesor aangehaal AgriForum, Namibië)

Die Holstein koei

Opstel deur 'n laerskool leerling: "Die koei is 'n soogdier. Hy is ook 'n huisdier. 'n koei is orrals. 'n koei het 'n baie Fein reik - jy reik homoor die jeleplaas. Agteraan die koei sit die stert. An die een Kant van die stert sit die pint van die stert wat die kwas genoem word en an die anner Kant sit die koei. Die koei gebruik die kwasom die flieje van haarwegtehouanners Val hulleinnie melk. Vooran die koei sit die kop. Daargroei die hoorings. Die kop hou ook die bek vas. Tissen die stert en die kop sit die koei. Die koei is oorgetrek met 'n beesvel. Onderan die koei hang die melk. Om die melk te kry, maak jy die koei se bene vas. Die agterstes. Dan sit jy onner die koei en trek die toutjie. Dan kom die melk. As die Gras goed is, is die melk goed. As die Gras sleg is, is die melk sleg. As die donner-weer in die lug is, is die melk weg. As dit 'n ou koei is, is die melk suur. Dit is baie goedkoop om 'n koei aan te hou want jy gee hom net eenkeer kos, Dan kou hy twee maal. Die man van die koei is die OS. Dit lyk soos die koei maar daar hang net nie melk aan hom nie. Om OS te se is nie 'n vloekwoord nie. Verder weet ek niks. Behalwe dat as 'n koei baie stip na jou kyk, moet jy padgee want Dan is dit 'n bul."

Bulle moet fiks wees en nie vet nie.

Coetzer som sy navorsing hieroor as volg op: "Oorvetheid by bulle kan lei tot vet deponering in die skrotum wat termo regulering belemmer en sodoende tot semenafwykings kan lei. Verder is oorvet bulle meer geneig om hoof- en beenprobleme te ontwikkel wat libido (dekdrang) verlaag. 'n Verdere probleem met oorvet bulle wat op 'n veiling aangekoop word, is dat die nuwe eienaar dikwels probeer om die bul maerder te kry deur die energie inname van die bul drasties te verlaag en ook soms die bul dadelik by die koeie te sit. Die metaboliese uitdaging wat vet katabolisme aan die bul stel, plus die ongewoon baie oefening deur 'n onfikse bul wat homself moet verdedig tussen 'n nuwe groep bulle, maak dit nie ongewoon vir so 'n bul om vir etlike maande nie nageslag voort te bring nie. Hoewel oorvoeding meer ernstig is, kan ondervoeding ook semenproduksie en libido nadelig beïnvloed."

Rooi en mooi

In die verlede was 'n "goeie bul" meestal raseg, lekker vet, en "rooi en mooi". Veekundiges het egter lankal bewys dat dit wat jy in die bul sien 'n kombinasie van genetiese en omgewingsfaktore (voeding) is en dat die omgewings-gedeelte nie na die nageslag oorgedra word nie. Slegs die genetika word oorgedra en die sogenaamde BLUP-prestasiestelsel gee ons die beste beraming van hierdie genetiese komponent.

(Outeur)

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